REPORT RESUMES

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SOURCE DATA ON PERCEPTIONS OF PARENTS AND CHILDREN REGARDING CAREER PLANNING. PLANNING AND DEVELOPMENT OF RESEARCH PROGRAMS IN SELECTED AREAS OF VOCATIONAL EDUCATION, VOLUME II.

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RESPONSES TO A QUESTIONNAIRE DEVELOPED TO GATHER DATA ON PLANS, ATTITUDES, INTERESTS, AND ASPIRATIONS OF STUDENTS AND PARENTS RELEVANT TO CAREER PLANNING WERE PRESENTED. THE QUESTIONNAIRE WAS ADMINISTERED TO 404 BOYS AND GIRLS (GRADES 6, 8, 10, AND 12) AND THEIR PARENTS. THE GATHERED DATA WERE COMPARED TO SHOW THE INFLUENCE OF PARENTS ON THEIR CHILDREN'S CAREER THINKING AND THE AGREEMENT AND DISAGREEMENT BETWEEN PARENTS AND CHILDREN ON A NUMBER OF ITEMS RELATED TO VOCATIONAL PLANNING. HIGH AGREEMENT WAS FOUND BETWEEN PARENTS AND CHILDREN ON QUESTIONS DEALING WITH THE NEED OR DESIRE FOR PARENTAL HELP AND INVOLVEMENT. CONVERSELY, LOW AGREEMENT WAS FOUND ON SEVERAL ITEMS WHICH REQUIRED CONCRETE INFORMATION ABOUT THE CHILD'S CAREER AND EDUCATIONAL PLANS AND ABOUT ATTRIBUTES OF THE CHILD WHICH SUIT HIM FOR A PARTICULAR OCCUPATION. THERE WAS ALSO LITTLE AGREEMENT ABOUT PERSONS AND EVENTS WHICH INFLUENCE THE CHILD IN HIS CAREER THINKING. THE IMPLICATIONS OF ATTITUDES OF PARENTS AND CHILDREN TOWARD SOME EDUCATIONAL-VOCATIONAL RELATED CONCEPTS WERE DISCUSSED. RELATED REPORTS ARE ED 010 623 THROUGH ED 010 626. (JH)

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SOURCE DATA ON PERCEPTIONS OF PARENTS AND CHILDREN REGARDING CAREER PLANNING

30 November 1966

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Planning and Development of Research Programs in Selected Areas of Vocational Education: Volume II, Source Data on Perceptions of Parents and Children Regarding Career Planning

Project No. 5-0047
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Eleanor L. Norris and Vivian S. Sherman

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I. INTRODUCTION

The choice of an appropriate occupation by the maturing youngster is recognized as a problem of pervading importance, for the culture in which the child lives (Venn, 1964), and for the student himself (Super, 1963). An appropriate choice must take into consideration the needs of the community; however, unless the particular needs of the individual--e.g., his interests and abilities, his aspirations for the future, his picture of himself as a member of the adult world--are also considered, achieving an appropriate and satisfying choice may be difficult if not impossible.

It is recognized that a major influence in the development of the child's interests and aspirations is the family situation in which he grew up. Counseling attempts designed to guide the youngster into appropriate career planning may be assisted greatly by taking family influences into account, perhaps even bringing the family into the counseling situation. An investigation of parental influence in vocational planning as perceived by parents and children, and agreement between parents and children about children's career interests and plans is reported here, along with a discussion of the implications of the findings for vocational guidance programs.

While the effects of children's choices are recognized as having a bearing upon how well the needs of the society in general are met, this volume deals with more subjective aspects of career planning: a) the child and his needs, and b) the place of the parent in the child's career planning.

The Individual and His Needs as a Factor in Career Planning

The individual and his affective needs--i.e., his attitudes, self-concept, and aspirations for success--were the focus of plans to prepare a counseling program aimed at developing the individual's self-understanding and thus leading him toward an appropriate career choice. A major assumption in developing this counseling program was that greater self-understanding would be achieved by having youngsters become more aware of their own interests, attitudes and aspirations relevant to career planning, and of how these interests, attitudes and aspirations compare with those of other children of the same and different sex, and at different stages--as represented by grade level--of career planning.

Several dimensions relevant to increased self-understanding were identified from the literature of research findings in this area of study. These dimensions include sex differences, perceived identification models, significant life events related to present career planning or interests, early childhood and current activities of particular interest to the individual, perception of certain of one's own personality characteristics, and attitude toward the self and other concepts important to career planning.[1]

A questionnaire then was developed which included items designed to tap these dimensions. Since an important aspect of the planned counseling program was to allow students to learn how other youngsters felt about career-relevant issues, the questionnaire was administered to a sample of boys and girls in grades 6, 8, 10 and 12. The responses to the questionnaire were then incorporated into the curriculum materials to be used in classroom career guidance activities. These counseling materials called for students in the class to respond to the same items as did the larger sample of boys and girls, to compare their own responses to those of the larger sample, and to engage in group discussion about the significance of their own responses and any differences from those of the larger sample.

Section III of this volume of the final report presents the responses of the sample of 6th, 8th, 10th and 12th grade children to the questionnaire. The rationale for the use of these responses in developing curriculum materials, and the curriculum materials themselves, are presented in Volume III of the final report, and comments about the data presented in Volume II are minimal.

Parental Responsibility in Child Career Planning

A recent article discussing career planning is entitled "Parental Aspirations: A Key to the Educational and Occupational Achievements of Youth" (Anderson, et. al., 1965). In it, the authors discuss the importance--often insufficiently recognized--of the role parents play in influencing educational and occupational achievements of youth. The article is a plea for the development of greater concern and the establishment of direct action programs for parents who face this awesome responsibility.

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[1] A review of the work of such investigators as Anastasi (1958), Venn((1964), Super, et. al. 1960), Super (1963), Bennett (1938) and Christiansen (1965), provided the basis for selecting these dimensions to emphasize in developing counseling materials.

This article articulates the recognition which participants in the present project already had achieved of the crucial role of parents in their children's career planning. Our recognition, in turn, reflected that of school people who expressed concern either about the lack of interest or the misdirected influence of parents on their children in the area of job planning and choice. One key recommendation of a report of occupational needs in San Mateo County, in fact, is to "Upgrade the prestige of vocational education, and the types of employment for which it prepares people, through an intensive program to improve counseling for students and to get the 'message' across to parents and the public" (Occupations Research Project, 1964, p. 195).

The consequences of an apparent lack of effort to draw parents into realistic assistance in their children's career planning may be inferred from a news story reporting the low enrollment at a local junior college in an aerospace program leading to desirable and well-paying jobs as technicians. School officials suggest one reason for this low enrollment is the stigma that 'technician' has to many parents. "They say 'my son must be a four year graduate or lawyer,' sometimes forcing children into a position for which they are totally incapable" (San Jose Mercury, 1966).

Rather than assuming from such statements that parental attitudes were in many cases influencing their children to make unwise career choices, it was decided to assess parents' existing attitudes and aspirations for their youngsters. A further, perhaps more important aspect of such a study was to compare parental attitudes and aspirations for their children with the attitudes and aspirations of the children themselves. In short, how much do parents and their children agree in general attitudes toward certain career-related concepts? How much do they agree in what the child wants to do? How much influence does the parent and does the child perceive the parent as exerting toward a particular career choice? To answer such questions, a questionnaire asking most of the same questions as were asked of the students was administered to the parents of the 6th, 8th, 10th, and 12th grade boys and girls in the child sample.

On the basis of the results of comparisons of responses of children and their parents, it was believed that decisions could be made as to the actual need for including parents in a more active counseling program. If such a step seemed appropriate, the results of the study could also provide material for developing educational programs to make parents aware of discrepancies between parents and children.

The data on child-parent comparisons is presented in Section IV of this volume, along with a discussion of the implications of the findings for the development of career counseling programs which might involve parents as well as children.

II. METHOD AND PROCEDURE

Several dimensions were identified for which questionnaire items should be prepared. Such items wo[illegible]de information useful in preparing child counseling mat[illegible] and would tap important areas of parent attitudes a[illegible]edge about their children's plans. These are:

1. the state of the child's career planning;

2. people and events perceived to exert an influence in the child's career thinking;

3. ages at which boys and girls should begin thinking serously about careers, and ages at which they should make a definite career choice;

4. kinds of jobs considered appropriate for boys, girls, or either sex;

5. values and goals of children, as seen by the children and their parents;

6. guidance activities and educational objectives judged important by children and their parents;

7. interests and activities of children at different ages; and

8. attitudes toward and feelings about several career and self-related concepts.

An initial questionnaire was administered as a pre-test to 54 boys and girls in grades 6, 8, 10 and 12 in Palo Alto Unified School District in March, 1966. Classroom teachers administered the questionnaire. A similar form of the questionnaire, but worded for parents, was sent to the parents of these boys and girls, and resulted in a 78% return. (Each was to be filled out by one parent or guardian.) On the basis of the pre-test and consultation with Palo Alto school personnel, certain revisions were made, resulting in the final form included in Appendix A. The parent and the child forms contain most of the same questions, and wording differs only so that questions are directed at the appropriate person (e.g., for the parent: Has your child made a career choice? For the child: Have you made a career choice?). Questions omitted from the parent questionnaire, but included in the child form, were ones ranking the relative satisfaction provided by and the importance of social activities, getting good grades, and excitement of learning (items 30 and 31, child questionnaire), and certain attitudinal items (Myself, My Ideal Self, My Job, and My Future Job).

Two types of items were used in the questionnaires. One was a question-answer format, to which Ss responded to alternatives provided by the experimenters, could write in an open-ended response, or were required to rank order a list of activities. These comprised the first 31 items (for the children; 29 items for the parents). Attitude, and other dimensions of connotative meaning (Osgood, 1952) were assessed by the semantic differential technique (Osgood, Suci, and Tannenbaum, 1957). This technique presents the name of a concept (e.g., HIGH SCHOOL) at the top of a page, with a series of bimodal adjectives below, to each of which Ss respond by a check mark on a 7-point scale. The concepts considered relevant for both parents and children were: HIGH SCHOOL, PROFESSIONAL WORK, JUNIOR COLLEGE, WORK, TECHNICAL WORK, FOUR YEAR COLLEGE, and LEISURE. For children, four other concepts were included: MY FUTURE, THE KIND OF PERSON I'D LIKE TO BE, MYSELF, and MY FUTURE WORK. Ss rated (by the 7-point scale) each concept on a set of 11 bimodal adjectives: interesting-boring, strong-weak, pleasant-unpleasant, fast-slow, certain-uncertain, good-bad, forceful-unforceful, active-passive, valuable-worthless, hard-soft, and safe-dangerous. These adjectives were selected on the basis of previous research with the semantic differential instrument (Osgood, et. al., 1957) to represent the three factors most often extracted--Evaluation, Potency, and Activity. The first of these, the Evaluative factor, is defined as a measure of attitude.

Procedure. Through the cooperation of personnel in the Palo Alto Unified School District, several classes of 6th, 8th, 10th and 12th grade boys and girls participated in the study. The 8th, 10th and 12th grades are divided into four lanes, ranging from advanced placement to a C lane group. Representatives of all four lanes are included in the sample. High school students were tested during their regular English class meeting, and the questionnaires were administered by the regular teachers, although the Investigators were present to answer any questions which might arise. The cover sheet of the questionnaire gave the reasons for the questionnaire and instructions for its use.

The following week, the parent form of the questionnaire was sent to all parents of students who had been present to participate in the study. A letter was included which explained the purpose of the study and asked their cooperation in responding.

The responses to questionnaire items were punched on IBM cards so that appropriate analyses could be made. The major portion of the data were subjected to chi square analysis, comparing frequency of response by boys and girls at the four grade levels to each item. The frequency and percent of responses and the results of chi square analyses where significant are shown in tabular form. All percents are rounded to the nearest whole number for ease of presentation. The analyses were performed on the frequencies themselves.

Where responses were made on equal-appearing interval scales, the data are presented as group mean scores, rather than as frequency of response to each category of the scale. The responses to the concepts rated using the semantic differential technique were subjected to factor analysis and analysis of variance. These procedures are discussed further when their results are given.

III. RESULTS: RESPONSES OF CHILDREN TO QUESTIONNAIRE ITEMS

The basic data from the questionnaire are presented in this volume in two ways. The child responses only are reported in this section, while the results of comparing child and parent responses will be discussed in the following section. Before presenting item responses, a description of demographic characteristics revealed by certain questionnaire items will be given.

Description of the sample.

A total of 404 student questionnaires were completed correctly, 197 boys and 207 girls. The distribution by grade level and sex is shown below.

	Boys	Girls	Total
Grade 6	37	56	93
Grade 8	47	56	103
Grade 10	53	58	111
Grade 12	60	37	97
Total	197	207	404

Palo Alto is predominently a middle or upper-middle class community of professional people, which was reflected by the occupations of both fathers and mothers of these children. The coding system established by the Investigators provided for three levels of occupation--professional, technical, and skilled. In the 10th and 12th grades, approximately three-fourths of both working fathers and working mothers were employed in occupations in the "professional" category, predominently in physical or biological sciences, art (e.g., commercial artist, writer, photographer, interior decorator) and particularly in work related to serving people (e.g., teacher or professor, psychologist, counselor).[2]

[2] Because of difficulties with the computer analyses, data has not yet been compiled for the 6th and 8th grades. Since the 6th and 8th grade data came from a neighborhood serving the high school in which the 10th and 12th grade students were enrolled, it is probable that the distribution would be similar to that for the 10th and 12th grades.

The ability level of the students in the sample was measured by the SCAT (School and College Ability Tests) which had already been administered by the Palo Alto School District. SCAT scores were translated onto a 9-point stanine scale for this study. Three scores are available from the SCAT test, a verbal ability measure, a quantitative ability measure, and a total score, all of which correlate at a high level (.7 or above). Looking only at the total SCAT score, it was found that the largest group of students falls in a high ability category (attaining stanine scores of 7, 8, or 9), while only a few students are in a low ability category (attaining stanine scores of 1, 2, or 3). Of the 350 students for whom SCAT scores were available, only 5% were in this low ability group, while 56% were in the high ability group. Thirty-nine percent of the students were in the moderate ability (stanine scores of 4, 5, or 6) group. Boys and girls are highly similar in this categorization.

It is apparent, then, that the sample data come from a fairly homogeneous group as far as level of occupation of parents, and from a group of boys and girls few of whom may be termed low in ability as measured by SCAT scores. Representatives of low socio-economic groups and from low ability groups are very few.

Rather than reporting the responses to each item on the questionnaire in sequence, questions which are similar in type of information gathered are grouped together for presentation below. The corresponding questionnaire item number is shown on each table of data. A listing giving questionnaire item number and the corresponding table number is given with the Table of Contents of this volume.

State of Career Planning

Several items were designed to learn about children's career interests and what planning, if any, they were doing for the future. The first of these simply asked whether the child had any broad areas of interest to explore for possible career choices in the future. The purpose of this question was not to discover what those interests were, but how broad was the field of career exploration the child saw open to him. Therefore, only the number of interests given by the child are reported. The number ranged for the most part between 0 and 3, although there were a very few youngsters who listed four, five and six interests. Because these instances were so few, data were consolidated into a range from "0" to "3 or more," as shown in Table 1. The only differences found by chi square analysis are for grades 8 and 10 where it appears that girls list more interests than do boys. As shown in Table 2, there is also a significant grade-level

TABLE 1^{+}

Range of Interest Stated (zero to three or more) By Sex and Grade Level

Number of Interests	Grade 6				Grade 8^{a}				Grade 10^{b}				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
0	9	24	11	20	19	40	12	21	10	19	11	19	11	18	7	19
1	15	41	24	43	17	36	16	29	20	38	9	16	17	28	13	35
2	11	30	13	23	9	20	15	27	14	26	14	24	18	30	8	22
3 or more	2	5	8	14	2	4	13	23	9	17	24	41	14	24	9	24
	37	100	56	100	47	100	56	100	53	100	58	100	60	100	37	100

a $X^2 = 10.45$, df=3, p .02.

b $X^2 = 11.32$, df=3, p .02.

$^{+}$Item #3, Child Questionnaire
*Frequence of Response in Each Category

TABLE 2[+]

Range Of Interest Stated (zero to three or more), Regardless Of Sex Of Respondents[a]

	Grade 6 Marginal			Grade 8 Marginal			Grade 10 Marginal			Grade 12 Marginal		
	F*	%	R**	F	%	R	F	%	R	F	%	R
0	20	22	3	31	30	2	21	19	4	18	19	4
1	39	42	1	33	32	1	29	26	2	30	31	1
2	24	26	2	24	23	3	28	25	3	26	26	3
+3	10	10	4	15	15	4	33	30	1	23	24	2
	93	100		103	100		111	100		97	100	

[a] $\chi^2 = 21.334$, $df = 9$, $p < .02$.

[+] Item #3, Child Questionnaire

*Frequency of Response in Each Category

**Rank Order of number of interests indicated.

difference, youngsters in grades 8 and 10 tending to list more interests than do children in grades 6 and 8.

The youngsters also were asked whether or not they had chosen a career. Definite "yes" answers range from 14% for 8th grade girls to 37% of the 12th grade boys as shown in Table 3. Definite "no" answers range from 18% to 47%. Only in the 6th grade was there a difference between boys and girls, boys being more likely to say "no" than are girls. Rather surprisingly, it is 6th and 12th grade children who are more likely to indicate that they have made a definite choice, as Table 4 shows. Only 27% of the 6th graders, in fact, say a definite "no," compared to nearly 40% of the children in the other grades. One may speculate that the 6th graders are more willing to report as a "choice" what the 8th and 10th graders recognize as an interesting possibility, but not yet a definite decision. The 12th graders, faced with graduation, possibly work, possibly the need to choose a "major" in college, may have settled on a choice with some conviction, at least for the time being.

What were the children's career choices? Occupations were classified in a 9 -category system, which is explained in Appendix B. Briefly, the categories are: Physical sciences (e.g., physics, meteorology, chemistry); Biological sciences (e.g., doctor, x-ray technician, gardener); Architecture (e.g., architect, building contractor); Arts (e.g., dancer, writer, dress designer); Symbolic (e.g., mathematician, computer consultant); Business (banker, owner of a business, secretary); Law and Government (e.g., lawyer, probation officer, post office worker); and what may be termed loosely, Service to people (e.g., teacher, psychologist, counselor, journalist); Miscellaneous (e.g., housewives, military men, and students). Jobs were also classified according to level--professional, technical, and skilled. So few students indicated any but professional choices that the data are presented in one category. It is apparent in Table 5 that there is a large sex difference in job choice, more boys choosing jobs in the physical sciences, while more girls choose "people" occupations. Girls show more flexibility in job choice, also, a fairly large percentage of them choosing careers in biological sciences and arts, while boys are predominently in the physical sciences category. It should be noted that a "Career choice not made or not reported" was included in this table. Comparing figures in this category with the number of students who actually said they had made no choice (reported in Tables 3 and 4), it is apparent that many students who said they had made a choice, did not indicate what that choice was. It is not possible to say whether this failure reflects a lack of "true" career choice or something else.

TABLE 3[+]

Boys and Girls Indicating They Have Chosen A Career

	Grade 6[a]				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Yes	9	24	16	28	7	15	8	14	12	23	9	16	22	37	10	28
Not Sure	13	35	30	54	18	38	30	54	23	43	23	40	17	28	11	30
No	15	41	10	18	22	47	18	32	18	34	25	44	21	35	15	42
	37	100	56	100	47	100	56	100	53	100	58	100	60	100	36	100

[a] Chi square analysis, sex x decision, at the 6th grade, shows $X^2 = 6.05$, $df = 2$, $p < .05$.

[+] Item #4, Child Questionnaire

*Frequency of Response in Each Category

TABLE 4[+]

Children Indicating They Have Chosen A Career, Ignoring Sex of Respondent[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	Marginal %	R**	F	Marginal %	R	F	Marginal %	R	F	Marginal %	R
Yes	25	27	2.5	15	14	3	21	19	3	32	33	2
Not Sure	43	46	1	48	47	1	46	42	1	28	29	3
No	25	27	2.5	40	39	2	43	39	2	36	38	1
	93	100		103	100		111	100		96	100	

[a] Comparing between grade levels, ignoring sex, $X^2 = 19.282$, df = 6, $p < .01$.

[+] Item #4, Child Questionnaire

*Frequency of Response in Each Category

**Rank Order of frequency of children at each grade level who say they have or have not made a career choice.

TABLE 5[+]

Children's Choices of Careers

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Miscellaneous	0	0	0	0	1	2	1	3	3	6	0	0	0	0	0	0
People	1	3	15	27	2	4	8	14	5	9	18	31	5	8	15	40
Law	3	8	0	0	1	2	0	0	3	6	4	7	2	3	0	0
Business	1	3	4	4	1	2	0	0	1	2	3	5	4	7	3	8
Symbolic	0	0	0	0	1	2	1	2	4	8	0	0	4	7	0	0
Art	2	5	13	23	3	7	13	23	3	6	8	14	0	0	5	14
Arch	4	11	1	2	0	0	0	0	5	9	0	0	3	5	0	0
Bio Sci	2	5	14	25	3	7	12	21	6	11	7	12	8	13	4	11
Phy Sci	10	27	3	5	13	27	0	0	8	15	0	0	16	27	1	3
No Response**	14	38	8	14	22	47	21	38	15	28	18	31	18	30	9	24
	37	100	56	100	47	100	56	100	53	100	58	100	60	100	37	100

[+] Item #5, Child Questionnaire

*Frequency of Response in Each Category

**Career Choice not made or not reported.

This same pattern--more boys choosing jobs falling in the physical sciences, while girls range from jobs in the people to art to biological sciences categories--is reflected when children were asked what job would be "best" for them. This is shown in Table 6. Comparison of what jobs children said they had chosen and what job they considered best for them found a high degree of agreement between them--there appears to be little discrepancy, as can be seen in Table 7.[3]

Children were then asked reasons why their "best" job would be best for them. Because most of the jobs listed fell into only four categories, and there were very small frequencies of response in the other categories, only the relationship between reasons and the four major career groups are shown. Table 8 gives these data for boys and girls at the four grade levels. The frequencies are so small as to make comparisons between grades meaningless, so frequencies were summed across the four grade levels for each of the four categories and for each reason. The results are shown in Table 9. Inspection of the table shows that for both boys and girls, for all four job classifications, the most youngsters check "Am interested and find enjoyment and personal satisfaction in it," a hardly surprising finding. There is also a tendency for youngsters to agree in giving the reason "Have talent, skills, or background for it," regardless of which field. It appears that the reason "Am inquisitive or inventive" is given relatively more importance by youngsters choosing jobs in the physical sciences, while "Am concerned for others and want to help," and "Get along well with others" are reasons tending to go with jobs in the biological sciences and dealing with people. There is no definite pattern emerging from these data, however, and no generalizations can be made.

A pervasive ambivalence in the respondents, or lack of clarity in the questionnaire may be inferred from responses to a question asking students why they had not made a decision. A large proportion of students responded to this question, even though they had indicated earlier that they had made a decision. The data for boys and girls is reported in Table 10. There were no significant differences between them in reasons checked. As more easily seen in Table 11, where frequencies summed for boys plus girls are shown, only a few of the reasons were checked. Most frequently checked by children in all four grades was the "Need to explore more fields before deciding." Other reasons frequently checked

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[3] Because of difficulties with the computer analysis, data on this comparison is only available for 10th and 12th grade boys and girls as this report is written.

TABLE 6[+]

Category of Career Cited as "Best For Me" By Boys and Girls

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F[*]	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Miscellaneous	0	0	0	0	2	4	0	0	1	2	1	2	1	2	0	0
People	1	3	14	25	5	11	12	21	6	11	24	41	8	14	17	46
Law	5	14	0	0	0	0	0	0	2	4	3	5	2	3	0	0
Business	0	0	4	7	1	2	3	6	5	10	5	9	3	4	2	5
Symbolic	2	5	0	0	3	6	1	2	3	6	0	0	4	7	0	0
Art	4	10	12	22	5	11	20	36	3	6	12	21	1	2	5	13
Arch	3	8	2	4	3	6	0	0	5	9	0	0	2	3	0	0
Bio Sci	1	3	8	14	3	6	12	21	7	13	10	17	5	8	4	11
Phy Sci	16	43	3	5	12	26	0	0	9	17	0	0	21	35	1	3
No Response	5	14	13	23	13	28	8	14	12	22	3	5	13	22	8	22
	37	100	56	100	47	100	56	100	53	100	58	100	60	100	37	100

[+] Item #20, Child Questionnaire
[*] Frequency of Response in Each Category

TABLE 7[+]

Degree of Agreement Between Job Choice and "Job Best for Me"[a]

	Grade 10								Grade 12							
	Boys				Girls				Boys				Girls			
	Agree		Disagree		Agree		Disagree		Agree		Disagree		Agree		Disagree	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Miscellaneous	1	3	2	8	1	3	0	0	0	0	0	0	0	0	0	0
People	3	9	2	8	16	42	1	5	5	12	1	8	12	45	2	13
Law	2	6	0	0	3	8	0	0	2	5	0	0	0	0	0	0
Business	0	0	1	4	3	8	0	0	3	8	1	8	1	4	1	7
Symbolic	3	9	0	0	0	0	0	0	3	8	1	8	0	0	0	0
Art	3	9	0	0	7	18	0	0	0	0	0	0	5	18	0	0
Arch	5	15	0	0	0	0	0	0	1	2	1	8	0	0	0	0
Bio Sci	3	9	0	0	7	18	0	0	4	10	1	8	3	11	0	0
Phy Sci	7	22	0	0	0	0	0	0	14	35	0	0	1	4	0	0
No Response	6	18	21	80	1	3	20	95	8	20	7	60	5	18	12	80
	33	100	26	100	38	100	21	100	40	100	12	100	27	100	15	100

[a] The "agree and disagree" categories include only those subjects who indicated a job choice and "the job best for me." If there was no response on one or both of these items, the subjects are in the "no response" category.

[+] Items #5 and 20, Child Questionnaire

TABLE 8⁺

Reasons Most Often Cited By Boys And Girls For Choosing "The Job Best For Me"

(Page 1 of 4 pages)

PHYSICAL SCIENCES (10)	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Interested	13	81	2	66	7	58	0	0	8	89	0	0	17	81	1	100
Intelligent	7	44	0	0	1	8	0	0	2	22	0	0	14	67	0	0
Inquisitive	5	31	2	66	1	8	0	0	6	67	0	0	12	57	0	0
Concern For Others	3	19	1	33	1	8	0	0	0	0	0	0	2	10	0	0
Get Along With Others	5	31	0	0	0	0	0	0	1	11	0	0	5	24	0	0
Careful, Neat	7	44	0	0	1	8	0	0	3	33	0	0	6	29	1	100
Talent, Skills	7	44	0	0	4	33	0	0	4	44	0	0	18	86	1	100
Express Self Well	3	19	0	0	1	8	0	0	0	0	0	0	5	24	0	0
Good Leader	2	12	0	0	0	0	0	0	0	0	0	0	3	14	0	0
	16**		3		12		0		9		0		21		1	

**Number of children whose choice of "the job best for me" fell in category 10, Physical Sciences. For example, 16 6th grade boys indicated jobs which are in this category. The percent in the next column is computed using this figure as the denominator.

⁺Item #21, Child Questionnaire

*Frequency of Response in Each Category

TABLE 8+

Reasons Most Often Cited By Boys And Girls For Choosing "The Job Best For Me"
(Page 2 of 4 pages)

BIOLOGICAL SCIENCES (20)	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Interested	1	100	7	88	2	67	10	83	6	86	9	90	5	100	4	100
Intelligent	1	100	0	0	1	33	2	17	3	43	2	20	1	20	1	25
Inquisitive	0	0	0	0	0	0	3	25	0	0	1	10	2	40	1	25
Concern For Others	0	0	6	75	1	33	9	75	3	43	6	60	1	20	2	50
Get Along With Others	1	100	2	25	1	33	5	42	0	0	4	40	1	20	2	50
Careful, Neat	1	100	0	0	1	33	1	8	1	14	4	40	1	20	3	75
Talent, Skills	0	0	1	13	2	67	3	25	3	43	3	30	3	60	3	75
Express Self Well	1	100	2	25	0	0	2	17	1	14	0	0	1	20	0	0
Good Leader	0	0	0	0	1	33	0	0	0	0	0	0	0	0	0	0
	1**		8		3		12		7		10		5		4	

**Number of children whose choice of "the job best for me" fell in category 20, Biological Sciences. For example, 1 6th grade boy indicated jobs which are in this category. The percent in the next column is computed using this figure as the denominator.

+Item #21, Child Questionnaire
*Frequency of Response in Each Category

TABLE 8[+]

Reasons Most Often Cited By Boys And Girls For Choosing "The Job Best For Me"
(Page 3 of 4 pages)

ART (40)	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Interested	2	50	8	67	5	100	17	85	3	100	12	100	1	100	5	100
Intelligent	1	25	0	0	2	40	1	5	2	67	2	17	0	0	1	20
Inquisitive	1	25	0	0	1	20	4	20	2	67	5	42	0	0	3	60
Concern For Others	1	25	3	25	1	20	1	5	0	0	2	17	0	0	0	0
Get Along With Others	2	50	4	32	0	0	3	15	0	0	5	42	1	100	1	20
Careful, Neat	0	0	0	0	0	0	4	20	0	0	3	25	1	100	1	20
Talent, Skills	2	50	6	50	2	40	13	65	2	67	7	58	1	100	5	100
Express Self Well	2	50	6	50	4	80	4	20	0	0	3	25	0	0	1	20
Good Leader	1	25	1	8	0	0	0	0	0	0	1	8	0	0	0	0
	4**		12		5		20		3		12		1		5	

**Number of children whose choice of "the job best for me" fell in category 40, Art. For example, 4 6th grade boys indicated jobs which are in this category. The percent in the next column is computed using this figure as the denominator.

[+] Item #21, Child Questionnaire

*Frequency of Response in Each Category

TABLE 8⁺

Reasons Most Often Cited By Boys And Girls For Choosing "The Job Best For Me"
(Page 4 of 4 pages)

PEOPLE (80)	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Interested	0	0	14	100	3	60	12	100	6	100	23	92	6	75	16	94
Intelligent	0	0	2	14	0	0	3	25	2	33	4	16	4	50	7	41
Inquisitive	0	0	4	29	0	0	2	17	1	17	4	16	4	50	6	35
Concern For Others	0	0	10	71	1	20	7	58	4	67	18	72	4	50	12	71
Get Along With Others	0	0	7	50	2	40	2	17	4	67	13	52	3	38	10	59
Careful, Neat	0	0	0	0	0	0	1	8	0	0	3	12	1	12	4	24
Talent, Skills	1	100	5	36	1	20	3	25	2	33	9	36	2	25	7	41
Express Self Well	0	0	4	29	1	20	2	17	0	0	7	28	0	0	2	12
Good Leader	0	0	0	0	0	0	1	8	2	33	6	24	1	12	4	24
	1**		14		5		12		6		25		8		17	

**Number of children whose choice of "the job best for me" fell in category 80, People. For example, 1 6th grade boy indicated jobs which are in this category. The percent in the next column is computed using this figure as the denominator.

⁺Item #21, Child Questionnaire
*Frequency of Response in Each Category

TABLE 9[+]

Reasons Most Often Cited By Boys And Girls For Choosing "The Job Best For Me" Summed Across All Four Grades

	PHYSICAL SCIENCES				BIOLOGICAL SCIENCES				ART				PEOPLE			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Interested	45	77	3	75	13	81	30	88	11	85	42	86	15	75	65	96
Intelligent	24	41	0	0	6	38	5	15	4	38	4	8	6	30	16	24
Inquisitive	18	31	2	50	2	12	5	15	4	31	12	24	5	25	16	24
Concern For Others	6	10	1	25	5	31	23	68	2	15	6	12	9	45	47	69
Get Along With Others	11	19	0	0	3	19	13	38	3	23	13	26	9	45	32	47
Careful,Neat	17	29	1	25	4	25	8	24	1	8	8	16	1	5	8	12
Talent,Skills	33	57	1	25	8	50	10	29	7	54	31	63	6	30	24	35
Express Self Well	9	16	0	0	3	19	4	12	6	46	14	29	1	5	15	22
Good Leader	5	9	0	0	1	6	0	0	1	8	2	4	3	15	11	16
	58		4		16		34		13		49		20		68	

[+] Item #21, Child Questionnaire
*Frequency of Response in Each Category

TABLE 10⁺

Reasons Boys And Girls Give For Not Having Chosen A Career

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Too Young To Decide	12	32	13	23	8	17	6	11	5	9	6	10	6	10	5	14
Need To Explore More	13	35	20	36	21	45	22	39	24	45	29	50	25	42	11	30
Too Little Voc Guidance	0	0	2	4	2	4	3	5	4	8	1	2	8	13	4	11
Busy Socially	3	8	3	5	2	4	2	4	7	13	3	5	2	3	2	5
Peer Influence	1	3	0	0	2	4	1	2	4	8	1	2	1	2	1	3
Unsure of Self	5	14	6	11	12	26	11	20	16	30	14	24	19	32	12	32
Have Problem	1	3	0	0	1	2	0	0	5	9	5	8	2	3	2	5
No Interest In School	2	5	0	0	1	2	2	4	3	6	3	5	4	7	2	5
Busy With Sports	5	14	0	0	3	6	0	0	8	15	0	0	4	7	1	3
**	37		56		47		56		53		58		60		37	

⁺Item #10, Child Questionnaire

*Frequency of Response in Each Category

**Frequency of boys and girls responding to this item, and on which percent was based. Students could check more than one reason, so percent does not add to 100.

TABLE 11[†]

Comparison Between Grade Levels Of Reasons Given For No Career Choice[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Too Young To Decide	25	27	2	14	14	3	11	10	3	11	11	4
Need To Explore More	33	36	1	43	42	1	53	48	1	36	37	1
Too Little Voc Guidance	2	2	6.5	5	5	4	5	4	8.5	12	12	3
Busy Socially	6	6	4	4	4	5	10	9	4.5	4	4	7.5
Peer Influence	1	1	8.5	3	3	7	5	4	8.5	2	2	9
Unsure of Self	11	12	3	23	22	2	30	27	2	31	32	2
Have Problem	1	1	8.5	1	1	9	10	9	4.5	4	4	7.5
No Interest In School	2	2	6.5	3	3	7	6	5	7	6	6	5
Busy With Sports	5	5	5	3	3	7	8	7	6	5	5	6
***	93			103			111			97		

[a] $W = .783$, $X^2 = 25.06$, df = 8, $p < .01$

[†] Item #10, Child Questionnaire

*Frequency of Response in Each Category

**Rank Order of frequency with which factors were mentioned.

***Frequency of students responding to this item, and on which percent was based. Students could check more than one reason, so percent does not add to 100.

include "Too young to decide," and "Unsure of myself and my own abilities." The relative frequency with which each reason was ranked in each grade is shown in the column headed "R" in Table 11. To determine whether this ordering was similar for all grades--whether the same reasons were most "popular"--Kendall's correlational procedure for more than two groups of ranks was used (Siegel, 1956). A significant coefficient of concordance was found, indicating that students at all four grade levels check the reasons in a similar manner.

Students who had not yet made a career choice then were asked to indicate how interested they were in exploring possibilities at this time. Almost all students responded to this item, even though they may have indicated that they had made a career choice. As stated before, whether this indicates uncertainty, open-minded curiousity, or something else cannot be determined here. Whatever the reason for their responding to the item, all students indicated some degree of interest, as Table 12 shows. (Mean scores are given, since responses were on a continuous scale.) No group was neutral or indicated no interest at all. Apart from what career they may or may not have chosen, students were asked what they planned to do after high school. Boys and girls responses to this question are shown in Table 13. There was no significant difference between them in their stated plans. The greatest number of students are definitely college bound, as Table 14 (where boys' and girls' responses are combined) makes apparent. There is significant agreement among the grades in plans to get at least some college education, and a rather large number of 10th and 12th grade students also indicate they plan to attend graduate school. However, the Kendall coefficient of concordance performed on the rank order of the frequency with which each plan was rated is significant, underlining the essential agreement among all grades in their plans for the future. Very few students indicate that they will go to work directly after high school, and about the same number of students in all grades indicate they will go into military service. This may be a realistic appraisal of their situation (this group is largely male, although three girls also indicated this plan). The large percentage of students who plan to attend an institution of higher learning may reflect the type of community in which they live, as described earlier.

When the boys and girls were asked to indicate what they thought their parents would most like them to do after high school, the perceived college expectations of the families is very clear. Table 15 shows the largest proportion of youngsters believe their parents want them to go to a four year college, perhaps transferring there from a junior college. This is true for both boys and girls, as Table 16 shows.

TABLE 12[†]

Degree of Interest of Boys and Girls in Exploring Career Possibilities[*]

	Grade 6		Grade 8		Grade 10		Grade 12	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mean	2.56	2.54	2.15	1.94	2.15	1.77	1.67	2.13
Standard Deviation	.97	1.12	1.09	.86	.97	.87	.92	1.10
N[**]	(37)	(56)	(47)	(56)	(53)	(58)	(60)	(37)

[†] Item #9, Child Questionnaire

[*] Responses are on a 5 point scale, 1 = most interested, 3 = neutral.

[**] Number of subjects on which the mean was computed.

TABLE 13+

What Boys And Girls Plan After High School

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Work After High School	4	11	5	9	2	4	5	9	3	6	7	12	7	12	3	8
Trainee	4	11	3	5	2	4	3	5	1	2	6	10	4	7	0	0
Tech School	2	5	6	11	2	4	9	16	3	6	11	19	1	2	3	8
Jr College	11	30	16	29	5	11	12	21	12	23	19	33	13	22	6	16
Jr College to 4 yr	14	38	20	36	23	49	25	45	18	34	22	38	16	27	10	27
4-yr College	13	35	27	48	23	49	34	61	26	49	32	55	34	57	19	51
Grad School	3	8	10	18	7	15	9	16	13	24	13	22	25	42	12	32
Marry	2	5	9	16	3	6	4	7	4	8	9	15	5	8	7	19
Military	13	35	2	4	9	19	0	0	13	24	0	0	9	15	1	3
**	37		56		47		56		53		56		60		37	

+Item #17, Child Questionnaire

*Frequency of Response in Each Category

**Frequency of boys and girls responding to this item, and on which percent was based. Students could check more than one activity, so actual column totals are greater than the number of respondents, and percent does not add to 100.

TABLE 14[+]

What Students Plan After High School, Regardless of Sex of Respondent[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Work After High School	9	10	7	7	7	7.5	10	9	8	10	10	6.5
Trainee	7	8	9	5	5	9	7	6	9	4	4	8.5
Tech School	8	9	8	11	11	5	14	13	5	4	4	8.5
Jr College	27	29	3	17	16	3	31	28	3	19	20	4
Jr College to 4 yr	34	36	2	48	47	2	40	36	2	26	27	3
4-yr College	40	43	1	57	55	1	58	52	1	53	55	1
Grad School	13	14	5	16	16	4	26	23	4	37	38	2
Marry	11	12	6	7	7	7.5	13	12	6.5	12	12	5
Military	15	16	4	9	9	6	13	12	6.5	10	10	6.5
***	93			103			111			97		

[a] $W = .800$, $X^2 = 25.60$, df = 8, $p < .01$.

[+] Item #17, Child Questionnaire

*Frequency of Response in Each Category

**Rank Order of Frequency With Which Factors Were Mentioned

***Frequency of boys and girls, responding to this item, and on which percent was based. Students could check more than one activity, so actual column totals are greater than the number of respondents, and percent does not add to 100.

TABLE 15[†]

Boys' And Girls' Perceptions Of What Their Parents Would Like Them To Do After High School, Regardless Of Sex Of Respondent[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Work After High School	3	3	5	1	1	6	1	1	7.5	2	2	5.5
Trainee	1	1	8.5	0	0	8.5	1	1	7.5	0	0	8.5
Tech School	1	1	8.5	1	1	6	7	7	3	2	2	5.5
Jr College	13	14	3	7	6	4	6	5	4.5	8	8	4
Jr College to 4-yr	24	26	2	29	28	2	21	19	2	20	21	2
4-yr College	32	34	1	47	46	1	58	52	1	50	52	1
Grad School	9	10	4	8	8	3	6	5	4.5	9	9	3
Marriage	2	2	6.5	0	0	8.5	0	0	9	1	1	7
Military	2	2	6.5	1	1	6	2	2	6	0	0	8.5
No Response	6	7		9	9		9	8		5	5	
	93			103			111			97		

[†] Item #18, Child Questionnaire

*Frequency of Response in Each Category

**Rank Order of Frequency With Which Factors Were Mentioned

TABLE 16+

Boys' And Girls' Perceptions Of What Their Parents Would Like Them To Do After High School

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Work After High School	2	5	1	2	0	0	1	2	0	0	1	2	0	0	2	5
Trainee	0	0	1	2	0	0	0	0	0	0	1	2	0	0	0	0
Tech School	0	0	1	2	0	0	1	2	2	4	5	9	1	2	1	3
Jr College	6	17	7	13	2	4	5	9	3	6	3	5	5	8	3	8
Jr College to 4-yr	9	25	15	26	15	32	14	25	10	18	11	18	14	23	6	17
4-yr College	13	35	19	34	20	3	27	48	28	52	30	52	30	50	20	54
Grad School	3	8	6	10	4	9	4	7	4	8	2	3	7	12	2	5
Marriage	0	0	2	4	0	0	0	0	0	0	0	0	0	0	1	3
Military	2	5	0	0	1	2	0	0	2	4	0	0	0	0	0	0
No Response	2	5	4	7	5	10	4	7	4	8	5	9	3	5	2	5
	37	100	56	100	47	100	56	100	53	100	58	100	60	100	37	100

+Item #18, Child Questionnaire
*Frequency of Response in Each Category

Influences in Career Planning, as Seen by Children

Investigators in child development are explicit in discussing the importance of identification figures to a child's development (for example, see Sears, Rau and Alpert, 1965). One aim of the counseling materials to be prepared from these data was to make students more aware of the people and events which had influenced them in their own career thinking. An attempt was also made to determine whether the child perceived the parent as influencing them in a particular career direction, and how much they felt parents should be involved in the child's vocational planning.

Nine persons were selected[4] as most likely identification figures for children, and the boys and girls in the sample were asked to check those who they felt had influenced them. The frequency of response is shown in Tables 17 and 18. At all grade levels Father is most frequently given as an influence, followed by Mother. Teachers are also mentioned frequently, as are peers, although the latter is not so much the case for 8th graders. The only differences in response between boys and girls were found in the 6th grade--more girls than boys mentioned mother and a brother or sister as an influence.

Students then were asked which one of the nine persons was the strongest influence. Again, Father and Mother are most often given, with significantly more boys than girls at each grade level listing Father as the strongest influence, and more girls than boys listing Mother as the strongest influence. This can be seen in Table 19. Teachers also are given by many students as a strong influence.

Students were also asked to check from a list of nine events the ones they felt has influenced them in their career interest or choice.[5] The only difference between responses of boys and girls was in the 6th grade--more boys than girls checked "Talent or ability" as an influence. Table 20 shows the responses of boys and girls for each influencing event, while Table 21 gives the sums of boys' plus girls' responses and the rank order of

[4] This list was formed on the basis of answers of children in the pilot study, who were asked to list the persons who had influenced them in their career interests.

[5] These events were taken from those listed by youngsters who participated in the pilot study.

TABLE 17[+]

Persons Cited As Influence on Career Choice

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Father	28	76	33	59	31	66	30	54	35	66	29	50[a]	48	80	16	43[a]
Mother	18	49	40	71[a]	21	45	34	61	24	45	35	60	34	57	21	57[a]
Sib	6	16	20	36[a]	12	26	10	18	9	17	8	14	15	25	7	19
Other Rel	4	11	11	20	12	26	13	23	12	23	13	22	12	20	5	14
Hero	1	3	3	5	1	2	3	5	2	4	1	2	1	2	1	2
Peers	13	35	17	30	4	8	12	21	16	30	19	33	19	32	14	38
Teachers	7	19	20	36	12	26	25	45[a]	20	38	31	53	31	52	24	65
Adult Friend	7	19	11	20	6	13	10	18	13	24	16	28	25	42	15	40
Someone Read Of	2	5	13	23[a]	15	32	15	27	18	34	16	28	9	15	12	32
* *	37		56		47		56		53		58		60		37	

[a] Chi square analysis, casting the frequencies into a 2 X 2 table (boy, girl X yes, no indication of this person as an influence), shows a significant difference between boys and girls, $p < .05$.

* *Frequency of boys and girls responding to this item, and on which percent was computed. Students could check more than one influencing person, so actual column totals are greater than the number of respondents, and percent does not add to 100.

[+] Item #6, Child Questionnaire

*Frequency of Response in Each Category

TABLE 18[+]

Rank Order Of Influencing Persons By Grade Level, Ignoring Sex[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Father	61	66	1	61	59	1	64	58	1	64	66	1
Mother	58	62	2	55	53	2	59	53	2	55	57	2.5
Sib	26	28	5	22	21	6	17	15	8	22	23	6
Other Rel	15	16	7.5	25	24	5	25	22	7	17	18	8
Peers	30	32	3	16	16	7.5	35	32	4	33	34	5
Teachers	27	29	4	37	36	3	51	46	3	55	57	2.5
Adult Friend	18	19	6	16	16	7.5	29	26	6	40	41	4
Someone Read Of	15	16	7.5	30	29	4	34	31	5	21	22	7
***	93			103			111			97		

[a] Comparing the ranks by the Kendall coefficient of concordance (Siegel, pp. 229-238), W = .747, $X^2 = 23.904$, df = 8, $p < .01$ -- a significant degree of agreement in ranking by all four grades. "Hero" was excluded because expected frequencies were too small to meet the requirements for chi square analysis.

[+] Item #6, Child Questionnaire

* Frequency of Response in Each Category

** Rank Order In Which Persons Were Cited As Influences

*** Frequency of students responding to this item, and on which percent was based. Students could check more than one influencing person, so actual column totals are greater than the number of respondents, and percent does not add to 100.

TABLE 19[+]

Persons Cited As Strongest Influence By Boys and Girls

	Grade 6[a]				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Father	20	54	6	11	21	46	10	17	17	32	6	10	22	37	3	8
Mother	2	5	21	38	4	8	14	25	5	9	17	30	7	12	8	22
Sib	1	3	5	9	4	8	5	9	2	4	1	2	3	5	2	5
Other Rel	0	0	2	4	4	8	2	4	4	8	3	5	0	0	0	0
Hero	0	0	0	0	0	0	1	2	1	2	0	0	1	2	0	0
Peers	5	13	3	5	1	2	2	4	2	4	4	7	4	6	4	10
Teachers	2	5	7	12	2	4	9	16	4	8	12	21	13	22	9	25
Adult Friend	1	3	4	7	1	2	4	7	5	9	6	10	4	6	1	3
Someone Read Of	1	3	1	2	5	11	5	9	7	13	3	5	1	2	2	5
No Response	5	14	7	12	5	11	4	7	6	11	6	10	5	8	8	22
	37	100	56	100	47	100	56	100	53	100	58	100	59	100	37	100

[a] A chi square analysis comparing indication of Father and Mother by boys and girls was done at each grade level: 6th grade, $X^2 = 20.29$, df = 1, $p < .001$; 8th grade, $X^2 = 7.709$, df = 1, $p < .01$; 10th grade, $X^2 = 9.830$, df = 1, $p < .01$; 12th grade, $X^2 = 6.09$, df = 1, $p < .02$.

[+] Item #7, Child Questionnaire

[*] Frequency of Response in Each Category

TABLE 20[+]

Factors Cited As Influences By Boys And Girls

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Experience	6	16	7	12	6	13	13	23	14	26	16	28	15	25	15	40
Expert	9	24	7	12	9	19	17	30	14	26	13	22	22	37	14	38
Handicap	1	3	3	5	0	0	1	2	2	4	3	5	1	2	2	5
Lessons	5	14	8	14	8	17	10	18	9	17	12	21	17	28	13	35
Parents Want	5	14	8	14	6	13	5	9	7	13	5	9	4	7	3	8
Interest	21	57	41	73	30	64	40	71	44	83	53	91	56	93	35	95
Talent	17	46	14	25[a]	15	32	17	30	26	49	33	56	35	58	26	70
Grades	15	40	21	38	18	38	18	32	21	40	20	34	26	43	19	51
Praise	5	14	12	21	12	26	11	20	9	17	14	24	16	27	18	49
**	37		56		47		56		53		58		60		37	

[a] Chi square comparison of boys and girls indicating and not indicating "Talent" as an influencing factor showed a significant difference, $p<.05$.

[+] Item #8, Child Questionnaire

*Frequency of Response in Each Category

**Frequency of boys and girls responding to this item, and on which the percents were based. Students could check more than one factor, so actual column totals are greater than the number of respondents, and percent does not add to 100.

TABLE 21[+]

Factors Cited As Influences, Regardless Of Sex Of Respondent[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Experience	13	14	7	19	18	6	30	27	4	30	31	6.5
Expert	16	17	5	26	25	4	27	24	5	36	37	4
Lessons	13	14	7	18	18	7	21	19	7	30	31	6.5
Parents Want	13	14	7	11	11	8	12	11	8	7	7	8
Interest	62	67	1	70	68	1	97	87	1	91	94	1
Talent	31	33	3	32	31	3	59	53	2	61	63	2
Grades	36	39	2	36	35	2	41	37	3	45	46	3
Praise	17	18	4	23	22	5	23	21	6	34	35	5
***	93			103			111			97		

[a] W = .919, $X^2 = 25.73$, df = 7, $p < .001$.
Illness or physical handicap category was excluded because expected frequencies were too small to meet the requirements for chi square analysis.

[+] Item #8, Child Questionnaire
*Frequency of Response in Each Category
**Rank Order of Frequency in which factors were mentioned
***Frequency of boys and girls responding to this item, and on which the percents were based. Students could check more than one factor, so actual column totals are greater than the number of respondents, and percent does not add to 100.

frequency with which each was mentioned. Significant agreement in the rankings was found by Kendall's coefficient of concordance, and inspection of the ranks show that "Personal interest and enjoyment," "Good grades in certain subjects," and "Talent or ability" are the three most often mentioned influences. "Praise from teachers or other adults," "Close association with an expert," and "Dramatic first-hand experience" also were mentioned rather frequently.

Several questions were included to determine how much help and influence parents gave to their children in career planning. Responses to these were made on a five-point equal-appearing interval scale, and the means and standard deviation for each question are shown in Tables 22 - 26 (a score of one indicates a great deal of help). Clearly, all groups of boys and girls feel their parents have given them at least some help (Table 22), and the groups also indicate that they want at least some help (Table 23). There is little feeling that parents have either tried very much or tried not at all to influence children toward "the kind of work they feel is best for you " (Table 24), and there is in fact the perception by the children that there is quite a bit of agreement between parent and child on what would be the best career choice (Table 25). Finally, children were asked how much they felt parents should be involved in the youngster's career decisions. At least some involvement is believed necessary by most of the groups, although 10th grade boys and 12th grade girls appear neutral on this question (Table 26).

It appears, then, that these children perceive a fairly tolerant attitude of their parents as far as influence is concerned, but at the same time they feel that help is given, and that help should be given to a certain extent. A general feeling of ease and toleration in the family may be drawn from these responses.

Time for Planning and Decision-Making

How do youngsters of different ages feel about the time to begin seriously thinking about careers? About the time to make a definite decision? The response to these questions is of practical consequence to the parent, teacher, and counselor who is attempting to help children in their career thinking. Do boys and girls think they should start exploring career ideas early? If so perhaps adult guidance should be planned for the early ages. On the other hand, if youngsters want to delay planning and decision-making until a point where it realistically interferes with achieving any goals set, attempts may be made by adults to arouse students' interest and guide his planning at an earlier age.

TABLE 22+

Child's Perception of How Much Parent Has Helped in Career Planning*

	Grade 6		Grade 8		Grade 10		Grade 12	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mean	2.81	2.86	2.66	2.64	2.83	2.66	2.45	2.84
Standard Deviation	1.24	1.24	1.13	1.02	.99	1.02	.95	.93
N**	(37)	(56)	(47)	(56)	(53)	(58)	(60)	(37)

+Item #11, Child Questionnaire

*Responses are on a 5 point scale, 1 = most interested, 3 = neutral.

**Number of subjects on which the mean was computed.

TABLE 23[+]

Amount of Help Children Indicate They Want from Parents*

	Grade 6		Grade 8		Grade 10		Grade 12	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mean	2.70	2.82	2.53	2.84	2.83	2.66	2.80	3.30
Standard Deviation	.88	1.03	.78	.76	1.14	.78	1.10	.88
N**	(37)	(56)	(47)	(56)	(53)	(58)	(60)	(37)

[+] Item #12, Child Questionnaire

*Responses are on a 5 point scale, 1 = most interested, 3 = neutral.

**Number of subjects on which the mean was computed.

TABLE 24[+]

Children's Perception of How Much Parents Have Tried To Influence Them Toward "Best" Work[a]

	Grade 6		Grade 8		Grade 10		Grade 12	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mean	3.46	3.50	3.22	3.46	3.25	3.30	3.41	3.27
Standard Deviation	.98	1.11	1.03	.99	1.08	1.02	1.02	.96
N**	(37)	(56)	(47)	(56)	(53)	(58)	(60)	(37)

[+] Item #22, Child Questionnaire
*Responses are on a 5 point scale, 1 = most interested, 3 = neutral.
**Number of subjects on which the mean was computed.

TABLE 25[+]

Children's Perceptions of How Much Parents and Children Agree on "Best" Job Choice*

	Grade 6		Grade 8		Grade 10		Grade 12	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mean	2.48	2.52	2.43	2.35	2.29	1.95	2.12	2.26
Standard Deviation	.89	1.13	1.09	.93	1.07	.87	.91	1.12
N**	(37)	(56)	(47)	(56)	(53)	(58)	(60)	(37)

[+] Item #23, Child Questionnaire
*Responses are on a 5 point scale, 1 = most interested, 3 = neutral.
**Number of subjects on which the mean was computed.

TABLE 26[+]

Amount of Involvement Children Indicate Parents Should Have In Children's Career Decisions[*]

	Grade 6		Grade 8		Grade 10		Grade 12	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mean	2.61	2.76	2.48	2.82	3.02	2.83	2.93	3.35
Standard Deviation	.93	.96	1.05	.83	.97	.84	.90	.82
N**	(37)	(56)	(47)	(56)	(53)	(58)	(60)	(37)

[+] Item #24, Child Questionnaire

[*] Responses are on a 5 point scale, 1 = most interested, 3 = neutral.

[**] Number of subjects on which the mean was computed.

Students were first asked when they thought boys should start thinking seriously about a career. The responses are given in Table 27. Although the frequencies are too small to compare between what boys say and what girls say, there appears to be much similarity in their responses. Ranking the frequency of response to each time period (e.g., junior high, early high school), a high degree of agreement appears between children at all grade levels as to when boys should begin thinking about careers as Table 28 shows. During junior high school or early high school are most often mentioned. Interestingly, however, a large number of 12th graders feel boys should not begin thinking about careers seriously until late high school.

The pattern of responses when students were asked when girls should begin seriously thinking about a career is similar to that of boys, even in that 12th graders believed girls could delay their thinking into late high school or even college, as can be seen in Tables 29 and 30. Children in grades 6 and 8 did not agree with this, most often checking junior high school or early high school as the time when girls should begin exploring careers. The trend for later "career-thinking" shows up somewhat in the 10th grade, but is strikingly apparent for the 12th grade.

There is an interesting difference between the time that children believe boys and girls may start thinking about a career. More than a fifth of the 12th graders believe girls should begin thinking seriously about a career in college whereas only 12 percent of the 12th graders felt that boys should wait that late.

This indication that the older youngsters--who are in fact about to enter a new life in which career planning and decision-making are an important part--are willing to delay planning appears to apply to actual decision-making as well. When asked when boys and girls should make a definite career decision, the largest proportion of children in grades 6, 8, and 10 agreed that late high school was the time to decide, but the largest group of 12th graders (32%) said that a definite decision need not be made until late college. These data are shown in Tables 31 - 34.

One may speculate that 12th graders are in a somewhat precarious position as far as their futures go--the need to think about a career, to make a decision, to enter the adult world may be threatening enough to cause these older youngsters to push back the deadlines. On the other hand, their wanting to delay career choice may indicate flexibility of thinking and a realistic

TABLE 27[+]

Time When Boys And Girls Say Boys Should Start Thinking About A Career[a]

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr Hi	0	0	5	9	2	4	1	2	1	2	0	0	2	3	2	5
During Jr Hi	19	51	20	36	21	45	21	37	20	38	20	34	13	22	7	19
Early H.S.	12	33	17	30	18	38	26	46	18	34	30	52	22	37	11	30
Late H.S.	3	8	10	18	4	9	6	11	7	13	6	10	15	25	9	24
Early College	3	8	2	3	1	2	1	2	6	11	0	0	6	10	5	14
Late College	0	0	1	2	0	0	0	0	1	2	0	0	0	0	1	3
No Response	0	0	1	2	1	2	1	2	0	0	2	4	2	3	2	5
	37	100	56	100	47	100	56	100	53	100	58	100	60	100	37	100

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[a] Too small expected frequencies in many cells did not allow chi square analyses to be performed between boys and girls at each grade level.

[+] Item #13, Child Questionnaire

[*] Frequency of Response in Each Category

TABLE 28[+]

Time When Students Say Boys Should Start Thinking About A Career, Regardless Of Sex Of Respondent[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Jr. Hi.	44	47	1	45	44	1	41	37	2	24	25	2.5
Early H.S.	29	31	2	44	42	2	48	43	1	33	34	1
Late H.S.	13	14	3	10	10	3	13	12	3	24	25	2.5
College	6	7	4	2	2	4	7	6	4	12	12	4
No Response	1	1		2	2		2	2		4	4	
	93	100		103	100		111	100		97	100	

[a] Because of the small frequency of response in the "before junior high school" and the "late college", these were combined into "junior high" and "college", respectively. W = .831, s = 66.50, $p < .05$. The "No Response" category was excluded from the analysis.

[+] Item #13, Child Questionnaire

*Frequency of Response in Each Category

**Rank Order of Frequency With Which Factors Were Mentioned

TABLE 29[+]

Time When Boys And Girls Say Girls Should Start Thinking About A Career[a]

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr Hi	0	0	7	12	1	2	1	2	1	2	0	0	1	2	1	2
During Jr Hi	9	24	16	28	14	30	17	30	6	11	15	26	9	15	7	19
Early H.S.	18	49	14	25	18	38	21	38	22	42	28	48	13	22	6	16
Late H.S.	6	16	14	25	7	15	15	26	13	24	15	26	22	36	13	35
Early College	4	11	2	4	1	2	1	2	6	11	0	0	9	15	8	22
Late College	0	0	1	2	0	0	0	0	3	6	0	0	3	5	1	3
No Response	0	0	2	4	6	13	1	2	2	4	0	0	3	5	1	3
	37	100	56	100	47	100	56	100	53	100	58	100	60	100	37	100

[a] Too small expected frequendes in many cells did not allow chi square analyses to be performed between boys and girls at each grade level.

[+] Item #15, Child Questionnaire
*Frequency of Response in Each Category

2

TABLE 30[+]

Time When Students Say Girls Should Start Thinking About A Career, Regardless Of Sex Of Respondent[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Jr. Hi.	32	34	1.5	33	32	2	22	20	3	18	18	4
Early H.S.	32	34	1.5	39	38	1	50	45	1	19	20	3
Late H.S.	20	22	3	22	21	3	28	25	2	35	36	1
College	7	8	4	2	2	4	9	8	4	21	22	2
No Response	2	2		7	7		2	2		4	4	
	93	100		103	100		111	100		97	100	

[a] Because of the small frequency of response in the "before junior high school" and the "late college," these were combined into "junior high" and "college," respectively. The "No Response" category was excluded and chi square analyses run for each grade level. No significant differences were found.

[+] Item #15, Child Questionnaire

*Frequency of Response in Each Category

**Rank Order of Frequency With Which Factors Were Mentioned

TABLE 31[+]

Time When Boys And Girls Say Boys Should Decide On A Career[a]

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr Hi	0	0	3	5	0	0	0	0	1	2	0	0	1	2	0	0
During Jr Hi	4	10	0	0	1	2	2	4	2	4	2	4	2	3	0	0
Early H.S.	11	30	9	16	11	23	7	12	12	22	10	17	2	3	1	2
Late H.S.	11	30	26	46	22	47	32	57	18	34	25	43	15	25	8	22
Early College	5	14	8	15	7	15	8	14	10	19	14	24	18	30	11	30
Late College	5	14	7	13	5	11	2	4	7	13	6	10	19	32	12	32
No Response	1	2	3	5	1	2	5	9	3	6	1	2	3	5	5	14
	37	100	56	100	47	100	56	100	53	100	58	100	60	100	37	100

[a] Too small expected frequencies in many cells did not allow chi square analyses to be performed between boys and girls at each grade level.

[+] Item #14, Child Questionnaire

*Frequency of Response in Each Category

TABLE 32[+]

Time When Students Say Boys Should Decide On A Career, Regardless Of Sex Of Respondent[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Jr. Hi.	7	8	5	3	3	5	5	5	5	3	3	4.5
Early H.S.	20	22	2	18	17	2	22	20	3	3	3	4.5
Late H.S.	37	40	1	54	52	1	43	38	1	23	24	3
Early College	13	14	3	15	15	3	24	21	2	29	30	2
Late College	12	12	4	7	7	4	13	12	4	31	32	1
No Response	4	4		6	6		4	4		8	8	
	93	100		103	100		111	103		97	100	

[a] "Before junior high" and "during junior high" were combined. $W = .591$, $s = 94.5$, $p < .05$. The "No Response" category was excluded from the analysis.

[+] Item #14, Child Questionnaire
*Frequency of Response in Each Category
**Rank Order of Frequency With Which Factors Were Mentioned

TABLE 33[+]

Time When Boys And Girls Say Girls Should Decide On A Career[a]

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr Hi	0	0	3	5	0	0	0	0	1	2	0	0	1	2	0	0
During Jr.Hi	3	8	0	0	0	0	2	4	2	4	3	6	1	2	0	0
Early H.S.	6	16	8	14	6	12	6	11	5	9	9	16	1	2	1	2
Late H.S.	11	30	25	45	24	51	32	57	19	36	20	34	18	30	9	24
Early College	11	30	10	18	5	11	8	14	10	19	19	32	16	26	8	22
Late College	5	14	7	13	5	11	4	7	11	21	7	12	17	28	14	38
No Response	1	2	3	5	7	15	4	7	5	9	0	0	6	10	5	14
	37	100	56	100	47	100	56	100	53	100	58	100	60	100	37	100

[a] Too small expected frequencies in many cells did not allow chi square analyses to be performed between boys and girls at each grade level.

[+] Item #16, Child Questionnaire
*Frequency of Response in Each Category

TABLE 34[+]

Time When Students Say Girls Should Decide On A Career, Regardless Of Sex Of Respondent[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Jr. Hi.	6	6	5	2	2	5	6	6	5	2	2	5
Early H.S.	14	15	3	12	12	3	14	13	4	2	2	4
Late H.S.	36	39	1	56	54	1	39	35	1	27	28	2
Early College	21	23	2	13	12	2	29	26	2	24	25	3
Late College	12	13	4	9	9	4	18	16	3	31	32	1
No Response	4	4		11	11		5	4		11	11	
	93	100		103	100		111	100		97	100	

[a] "Before junior high" and "during junior high" were combined. $W = .819$, $s = 131$, $p < .05$.
The "No Response" category was excluded from the analysis.

[+] Item #16, Child Questionnaire
*Frequency of Response in Each Category
**Rank Order of Frequency With Which Factors Were Mentioned.

awareness that there are many new things to learn which may affect any choices made at too early a date.

Judged Appropriateness of Selected Occupations for Boys and Girls

This item was included to determine the degree to which youngsters may have stereotyped ideas about which sex may enter which occupational fields. In preparing counseling curriculum materials, the intent was to open career doors which youngsters may have felt were closed because of the occupation's being stereotyped as a male or female prerogative. A list of 19 occupations was drawn up to represent jobs which, traditionally in our society, have been considered more open to men, to women, or to both, and students were asked to indicate whether they felt each job was appropriate for boys, for girls, or for either boys or girls.

The responses for boys and girls, shown in Table 35, indicate that certain occupations are indeed stereotyped as being appropriate for boys or girls. But there is a large percentage of boys and girls at all grade levels who feel that many jobs are open to both sexes. These include computer programmer, doctor, social worker, accountant, chemist, mathematician, journalist, psychologist, artist, and teacher. Youngsters who do not indicate that these jobs are appropriate for either sex are likely to say they are appropriate only for boys, a finding which does suggest the usual sex stereotyping of these occupations as masculine.

Occupations which are felt to be appropriate for girls by most students are secretary, and nurse, while students are divided in rating librarian and interior decorator appropriate for either sex or for girls. A few of the occupations are felt by most of the students to be appropriate for boys--police work, business executive, engineer, and draftsman--and students split between marking architecture as appropriate for boys or for either sex.

Of particular interest in these data is the apparent trend from younger to older youngsters in judged appropriateness of certain of the occupations. While for most occupations there is a high degree of similarity in boys and girls in judged appropriateness, a very obvious difference occurs between 12th grade boys and girls for three occupations--business executive, police work, and engineer. Both boys and girls in grades 6, 8 and 10 appear agreed that engineer is most appropriate for boys, as are police work and business executive (although these also are judged appropriate for either sex by a fairly large percentage of the students). Twelfth grade boys also judge business executive most

TABLE 35+

Judged Appropriateness Of Selected Occupations For Boys And Girls

(Page 1 of 4 pages)

Grade 6

APPROPRIATE FOR:	BOYS SAY: Either		Girls		Boys		GIRLS SAY: APPROPRIATE FOR: Either		Girls		Boys	
	F*	%	F	%	F	%	F	%	F	%	F	%
Programer	26	81	0	0	6	19	41	76	4	7	9	17
Secretary	11	30	25	67	1	3	13	24	42	76	0	0
Doctor	24	73	0	0	9	27	45	83	0	0	9	17
Social Worker	30	86	3	8	2	5	46	88	4	8	2	4
Accountant	20	61	5	15	8	24	34	65	5	10	13	25
Executive	7	21	0	0	27	79	21	38	0	0	34	62
Police Work	11	31	0	0	25	69	17	32	0	0	37	68
Engineer	6	17	0	0	29	83	14	26	0	0	40	74
Nurse	5	14	29	83	1	13	8	15	46	85	0	0
Chemist	24	71	0	0	10	29	45	82	0	0	10	18
Mathematician	27	79	0	0	7	21	48	87	0	0	7	13
Architect	14	40	0	0	21	60	32	58	0	0	23	42
Journalist	26	76	4	12	4	12	41	76	6	11	7	13
Librarian	20	57	15	43	0	0	26	47	28	51	1	2
Psychologist	21	62	0	0	13	38	36	67	2	4	16	29
Draftsman	7	21	0	0	27	79	6	11	0	0	46	89
Artist	30	91	0	0	3	9	52	98	0	0	1	2
Interior Dec	21	62	10	29	3	9	37	68	14	26	3	6
Teacher	35	97	0	0	1	3	55	100	0	0	0	0

+Item #19, Child Questionnaire

*Frequency of Responses to this Item

TABLE 35[†]

Judged Appropriateness Of Selected Occupations For Boys And Girls
(Page 2 of 4 pages)

Grade 8

APPROPRIATE FOR:	BOYS SAY: Either		Girls		Boys		GIRLS SAY: Either		Girls		Boys	
	F*	%	F	%	F	%	F	%	F	%	F	%
Programer	31	69	0	0	14	31	44	79	3	5	9	16
Secretary	17	38	28	62	0	0	9	16	47	84	0	0
Doctor	28	61	0	0	18	39	45	80	1	2	10	18
Social Worker	37	84	5	11	2	5	45	80	8	14	3	6
Accountant	33	73	1	2	11	25	34	62	3	5	18	33
Executive	9	20	0	0	36	80	21	38	0	0	34	62
Police Work	13	29	0	0	32	71	20	36	0	0	36	64
Engineer	8	18	0	0	37	82	14	25	1	2	41	73
Nurse	6	13	40	87	0	0	16	29	38	69	1	2
Chemist	32	70	0	0	14	30	45	80	0	0	11	20
Matematician	36	78	1	2	9	20	42	75	0	0	14	25
Architect	20	44	0	0	25	56	30	55	0	0	25	45
Journalist	40	91	3	7	1	2	48	87	6	11	1	2
Librarian	17	38	28	62	0	0	23	41	32	57	1	2
Psychologist	29	67	0	0	14	33	41	75	0	0	14	25
Draftsman	8	18	0	0	37	82	16	29	0	0	39	71
Artist	44	98	0	0	1	2	51	94	3	6	0	0
Interior Dec	19	42	20	45	6	13	35	63	18	32	3	5
Teacher	44	98	1	2	0	0	52	93	2	4	2	4

[†] Item #19, Child Questionnaire

*Frequency of Responses to this Item

TABLE 35+

Judged Appropriateness Of Selected Occupations For Boys And Girls

(Page 3 of 4 pages)

Grade 10

APPROPRIATE FOR:	BOYS SAY: Either		Girls		Boys		GIRLS SAY: Either		Girls		Boys	
	F*	%	F	%	F	%	F	%	F	%	F	%
Programer	44	82	3	6	6	11	48	82	7	12	3	5
Secretary	9	16	43	81	1	2	11	19	46	80	0	0
Doctor	40	75	0	0	13	24	49	84	0	0	9	16
Social Worker	43	82	7	13	2	4	51	88	6	10	1	2
Accountant	35	67	6	12	11	21	45	78	3	5	9	16
Executive	14	26	0	0	39	74	18	30	1	2	39	67
Police Work	21	40	0	0	32	60	17	29	1	2	40	68
Engineer	16	30	0	0	37	70	16	28	0	0	42	72
Nurse	12	22	40	75	1	2	16	28	41	72	0	0
Chemist	48	90	0	0	5	9	50	88	0	0	7	12
Math	44	82	0	0	9	16	45	77	1	2	12	20
Architect	27	50	0	0	26	49	28	49	0	0	29	50
Journalist	46	86	3	6	4	8	57	98	1	2	0	0
Librarian	22	42	30	56	1	2	16	28	41	70	1	2
Psychologist	44	84	0	0	8	15	50	88	1	2	6	10
Draftsman	18	34	0	0	35	66	9	16	0	0	49	84
Artist	51	96	1	2	1	2	56	96	0	0	2	3
Interior Dec	31	58	21	40	1	2	31	53	27	46	0	0
Teacher	50	94	1	2	2	4	56	96	1	2	1	2

+Item #19, Child Questionnaire

*Frequency of Responses in Each Category

TABLE 35⁺

Judged Appropriateness Of Selected Occupations For Boys And Girls

(Page 4 Of 4 pages)

Grade 12

	BOYS SAY:							GIRLS SAY:					
APPROPRIATE FOR:	Either		Girls		Boys		APPROPRIATE FOR:	Either		Girls		Boys	
	F*	%	F	%	F	%		F	%	F	%	F	%
Programer	56	93	2	3	2	3		33	92	1	2	2	6
Secretary	12	20	48	80	0	0		13	37	22	62	0	0
Doctor	42	70	0	0	18	30		32	88	0	0	4	11
Social Work	51	84	8	13	1	2		34	92	3	8	0	0
Accountant	41	68	3	4	16	26		29	80	0	0	7	19
Business Exec	15	24	0	0	45	74		19	54	0	0	16	46
Police Work	26	43	0	0	34	56		18	51	0	0	17	48
Engineer	24	40	0	0	36	60		19	56	0	0	15	44
Nurse	20	33	40	66	0	0		15	42	20	57	0	0
Chemist	47	78	0	0	13	22		32	88	0	0	4	11
Mathematician	49	82	0	0	11	18		32	91	0	0	3	8
Architect	33	54	0	0	27	44		25	69	0	0	11	30
Journalist	54	90	3	4	3	4		35	97	0	0	1	2
Librarian	31	52	29	48	0	0		17	47	19	52	0	0
Psychologist	47	78	1	2	12	20		32	88	0	0	4	11
Draftsman	21	34	1	2	38	63		14	38	1	2	21	58
Artist	57	96	0	0	2	3		36	100	0	0	0	0
Interior Dec	47	78	13	22	0	0		28	76	9	24	0	0
Teacher	59	98	1	2	0	0		36	100	0	0	0	0

⁺Item #19, Child Questionnaire

*Frequency of Response in Each Category

appropriate for boys, and the majority of boys feel business executive and police work are appropriate for boys (although more 12th grade boys also rate these two as appropriate for either sex than did the younger children). Twelfth grade girls, on the other hand, split almost 50-50 between rating these three occupations appropriate for either sex and appropriate for boys--and the majority of these girls judge these three to be appropriate for either sex. For these girls, then, more doors are perceived open than is apparently the case for younger girls, but whether they will find boys agreeing with them is another matter.

Values and Goals of Boys and Girls

In counseling children in their career plans, not only concrete information about the world of work is required, but the values and aspirations of the youngsters must be considered as well. To determine what the values and aspirations of a sample of boys and girls are, children were asked to indicate whether each of a list of events was "most important" "somewhat important" or "least important" for the achievement of "your success." Success was not defined, leaving it up to the children to indicate what success meant to them.

The responses to 15 events included in the list are shown in Table 36. For certain of the events, trends appear from grade to grade, or between boys and girls, and only these will be discussed here. The most surprising trend which shows up is the declining number of students in the upper grades who indicate that "getting a college degree" is most important for success. While in the 6th grade 97% of the boys and 84% of the girls mark this as most important for success, in grades 10 and 12 a maximum of only 68% rate it most important. At all grade levels, fewer girls than boys rate it most important, and only 46% of the 10th grade girls and 51% of the 12th grade girls rate it most important.

A trend in the opposite direction shows up for "developing talents and abilities." While this is rated most important by a large percent of students at all grades, more students in the upper grades than in the lower grades mark it as most important

There are marked sex differences in the number of students indicating "being a top student" is most important, and differences between grades as well. More boys than girls indicate this is most important--except in the 12th grade, where about the same number of boys and girls check it as most important. And the number of students in grades 10 and 12 who feel it is most important to be a top student is less than in the 6th and 8th grades. For example,

TABLE 36⁺

Boys' And Girls' Ratings Of Importance Of Events For Success
(Page 1 Of 6 pages)

		Grade 6								Grade 8							
		Boys				Girls				Boys				Girls			
		1**	2	3	Total	1	2	3	Total	1	2	3	Total	1	2	3	Total
Be Popular	F*	16	19	2	(37)	20	32	2	(54)	13	31	2	(46)	16	35	5	(56)
	%	43	51	6	(100)	37	59	4	(100)	28	68	4	(100)	28	63	9	(100)
Get A College Degree	F	36	1	0	(37)	46	8	1	(55)	42	4	0	(46)	38	15	1	(54)
	%	97	3	0	(100)	84	14	2	(100)	91	9	0	(100)	70	28	2	(100)
Develop Talent And Ability	F	25	11	0	(36)	36	17	1	(54)	33	12	1	(46)	43	10	2	(55)
	%	69	31	0	(100)	67	31	2	(100)	72	26	2	(100)	78	18	4	(100)
Be A Top	F	17	17	2	(36)	20	30	3	(53)	19	25	2	(46)	11	33	11	(55)
Student	%	47	47	6	(100)	38	56	6	(100)	41	55	4	(100)	20	60	20	(100)
Do What Parents Want	F	13	18	6	(37)	18	26	10	(54)	13	25	8	(46)	7	30	18	(55)
	%	35	49	16	(100)	33	48	19	(100)	28	55	17	(100)	13	54	33	(100)

⁺Item #28, Child Questionnaire

*Frequency of Response in Each Category

**A "1" indicates a rating of "most important," a "2", a rating of "somewhat important," and a "3", a rating of "least important."

TABLE 36⁺

Boys' And Girls' Ratings Of Importance Of Events For Success
(Page 2 of 6 pages)

		Grade 10								Grade 12							
		Boys				Girls				Boys				Girls			
		1**	2	3	Total	1	2	3	Total	1	2	3	Total	1	2	3	Total
Be Popular	F*	23	25	5	(53)	20	35	3	(58)	17	37	6	(60)	15	17	5	(37)
	%	43	47	10	(100)	35	60	5	(100)	28	62	10	(100)	40	46	14	(100)
Get A College Degree	F	36	14	3	(53)	27	30	1	(58)	35	16	7	(58)	19	15	3	(37)
	%	68	26	6	(100)	46	52	2	(100)	60	28	12	(100)	51	41	8	(100)
Develop Talent And Ability	F	42	11	0	(53)	48	7	3	(58)	52	7	1	(60)	32	4	1	(37)
	%	79	21	0	(100)	83	12	5	(100)	87	12	1	(100)	86	11	3	(100)
Be a Top Student	F	17	31	5	(53)	9	42	7	(58)	10	36	13	(59)	7	18	12	(37)
	%	32	58	10	(100)	16	72	12	(100)	17	61	22	(100)	19	49	32	(100)
Do What Parents Want	F	7	23	23	(53)	9	21	27	(57)	5	22	33	(60)	1	11	25	(37)
	%	14	43	43	(100)	16	37	47	(100)	8	37	55	(100)	3	30	67	(100)

⁺Item #28, Child Questionnaire

*Frequency of Response in Each Category

**A "1" indicates a rating of "most important," a "2", a rating of "somewhat important," and a "3", a rating of "least important."

TABLE 36⁺

Boys' And Girls' Ratings Of Importance Of Events For Success

(Page 3 of 6 pages)

		Grade 6								Grade 8							
		Boys				Girls				Boys				Girls			
		1**	2	3	Total	1	2	3	Total	1	2	3	Total	1	2	3	Total
Be A Good	F*	14	15	8	(37)	6	19	27	(52)	7	22	16	(45)	2	11	42	(55)
Athlete	%	38	40	22	(100)	12	36	52	(100)	15	49	36	(100)	4	20	76	(100)
Contribute	F	17	19	1	(37)	16	29	7	(52)	17	24	5	(46)	21	28	6	(55)
To Society	%	46	51	3	(100)	31	56	13	(100)	37	52	11	(100)	38	51	11	(100)
Make Name	F	12	13	12	(37)	16	25	12	(53)	20	19	7	(46)	12	26	17	(55)
For Self	%	32	36	32	(100)	30	47	22	(100)	44	41	15	(100)	22	47	31	(100)
Help Others	F	23	14	0	(37)	39	13	1	(53)	26	19	1	(46)	40	12	3	(55)
	%	62	38	0	(100)	73	24	3	(100)	57	41	2	(100)	72	22	5	(100)
Have A Responsible	F	29	8	0	(37)	40	14	0	(54)	37	9	0	(46)	34	18	2	(54)
Job	%	78	22	0	(100)	74	26	0	(100)	80	20	0	(100)	62	34	4	(100)

⁺Item #28, Child Questionnaire

*Frequency of Response in Each Category

**A "1" indicates a rating of "most important," a "2", a rating of "somewhat important," and a "3", rating of "least important."

TABLE 36⁺

Boys' And Girls' Ratings Of Importance Of Events For Success
(Page 4 of 6 pages)

		Grade 10								Grade 12							
		Boys				Girls				Boys				Girls			
		1**	2	3	Total	1	2	3	Total	1	2	3	Total	1	2	3	Total
Be A Good	F*	10	30	12	(52)	1	11	45	(57)	5	23	32	(60)	2	4	31	(37)
Athlete	%	19	58	23	(100)	2	19	79	(100)	8	38	54	(100)	5	11	84	(100)
Contribute	F	19	25	9	(53)	23	30	4	(57)	27	29	4	(60)	16	14	6	(36)
To Society	%	36	47	17	(100)	40	53	7	(100)	45	48	7	(100)	44	39	17	(100)
Make Name	F	20	24	9	(53)	11	25	21	(57)	23	24	13	(60)	4	14	19	(37)
For Self	%	38	45	17	(100)	19	44	37	(100)	38	40	22	(100)	11	38	51	(100)
Help Others	F	30	17	6	(53)	49	9	0	(58)	27	27	6	(60)	27	9	1	(37)
	%	57	32	11	(100)	84	16	0	(100)	45	45	10	(100)	73	24	3	(100)
Have A Responsible	F	29	19	5	(53)	34	20	4	(58)	34	19	6	(59)	16	15	6	(37)
Job	%	55	36	9	(100)	59	34	7	(100)	58	32	10	(100)	43	41	16	(100)

⁺Item #28, Child Questionnaire

*Frequency of Response in Each Category

**A "1" indicates a rating of "most important," a "2", a rating of "somewhat important," and a "3", rating of "least important."

TABLE 36+

Boys' And Girls' Ratings Of Importance Of Events For Success
(Page 5 of 6 pages)

		Grade 6								Grade 8							
		Boys				Girls				Boys				Girls			
		1	2	3	Total	1	2	3	Total	1	2	3	Total	1	2	3	Tota
Express Self	F*	20	17	0	(37)	31	21	1	(53)	28	17	1	(46)	33	17	5	(55
	%	54	46	0	(100)	58	39	3	(100)	61	37	2	(100)	60	31	9	(100
Lead Adventurous Life	F	18	13	5	(36)	16	30	8	(54)	7	26	13	(46)	10	25	20	(55
	%	50	36	14	(100)	30	56	14	(100)	15	57	28	(100)	18	46	36	(100
Get Married	F	20	14	3	(37)	17	23	13	(53)	12	23	10	(45)	13	29	14	(56)
	%	54	38	8	(100)	32	43	25	(100)	27	51	22	(100)	23	52	25	(100)
Make Money	F	19	11	6	(36)	13	16	24	(53)	15	25	6	(46)	4	22	29	(55)
	%	53	30	17	(100)	25	30	45	(100)	32	55	13	(100)	7	40	53	(100)
Have Steady, Good Paying Job	F	30	7	0	(37)	37	17	0	(54)	39	6	1	(46)	34	16	5	(55)
	%	81	19	0	(100)	68	32	0	(100)	85	13	2	(100)	62	29	9	(100)

+Item #28, Child Questionnaire

*Frequency of Response in Each Category

**A "1" indicates a rating of "most important," a "2", a rating of "somewhat important," and a "3", a rating of "least important".

TABLE 36⁺

Boys' And Girls' Ratings Of Importance Of Events For Success

(Page 6 of 6 pages)

		Grade 10								Grade 12							
		Boys				Girls				Boys				Girls			
		1	2	3	Total	1	2	3	Total	1	2	3	Total	1	2	3	Total
Express Self	F*	37	12	3	(52)	41	16	1	(58)	42	15	3	(60)	32	5	0	(37)
	%	71	23	6	(100)	70	28	2	(100)	70	25	5	(100)	86	14	0	(100)
Lead Adventurous Life	F	17	23	13	(53)	10	30	18	(58)	13	22	24	(59)	6	16	14	(36)
	%	32	43	25	(100)	17	52	31	(100)	22	37	41	(100)	17	44	39	(100)
Get Married	F	17	19	17	(53)	21	26	10	(57)	15	28	17	(60)	12	12	13	(37)
	%	32	36	32	(100)	37	46	17	(100)	25	47	28	(100)	32	32	36	(100)
Make Money	F	11	28	14	(53)	4	22	32	(58)	19	25	16	(60)	3	11	23	(37)
	%	21	53	26	(100)	7	38	55	(100)	32	42	26	(100)	8	30	62	(100)
Have Steady, Good Paying Job	F	40	7	6	(53)	31	21	6	(58)	34	16	10	(60)	10	16	11	(37)
	%	76	13	11	(100)	54	36	10	(100)	57	26	17	(100)	27	43	30	(100)

⁺Item #28, Child Questionnaire

*Frequency of Response in Each Category

**A "1" indicates a rating of "most important," a "2", a rating of "somewhat important," and a "3", a rating of "least important."

while 47% of the 6th grade boys feel this is most important, only 17% of the 12th grade boys feel this way.

There is a similar linear trend from 6th to 12th grade in the frequency of students who indicate "Accomplish what parent feels you are capable of doing" is most important for success. While 34% of the youngsters in the 6th grade feel this most important, only 5% of the 12th graders check this as most important. In fact a large proportion of the 12th graders feel this is least important.

Sex differences are apparent in the frequency of boys and girls indicating that "Making a name for myself" is most important. Less than 44% of any group of boys finds this most important for success, but the largest proportion of girls indicating it is most important is 30% (in the 6th grade), and only 11% of the 12th grade girls feel it is most important.

While girls appear less motivated to make names for themselves, they do express more desire to "Be able to help others" than do boys. This difference is most marked in the 12th grade, where 73% of the girls, but only 45% of the boys, feel this is most important to success.

"Having a responsible job" is relatively important for 6th and 8th grade students, but becomes somewhat less so for the upper grades. The smallest group indicating this is most important for success are the 12th grade girls (43% rating it most important).

Similar results are found for ratings of "Having a steady, good-paying job that will last." Younger children more often check this as most important than do older boys and girls, and more boys than girls rate it as most important at all grade levels. Whereas 81% of the 6th grade boys feel it is most important, only 57% of the 12th grade boys check it as most important. Similarly, 68% of the 6th grade girls feel this is most important, but only 27% of the 12th grade girls feel this.

Other values appear to be more important to older youngsters. "Developing talents and abilities" is one of these, as discussed above. Another is "Being able to pursue own interests and express self creatively." More than 50% of the 6th graders believe this is most important, and this figure increases to 70% and more of the 10th and 12th graders.

The apparent lesser emphasis on security in the form of a steady job, but greater emphasis on freedom to develop one's own capabilities, as children grow older also holds true for the relative importance of "Making lots of money in order to have a fine home, cars, etc." More boys than girls rate this as most important to success, but the number of students making such a rating declines steadily from the 6th grade to the 12th. While 53% of the 6th grade boys feel it is most important, only 32% of 12th grade boys agree; 25% of 6th grade girls rate it most important, but only 8% of the 12th grade girls.

As a whole, a general feeling may be deduced from these data of a greater desire for security--steady job, top grades, college degree, lots of money--by younger children, while older children feel these things are less important, and stress non-material goals--developing their own talents and abilities.

Students were also asked to indicate which of the events, if it were not attained, would "represent to you the greatest failure." The apparent shift from lower to upper grades in what is important for success also shows up in these data, shown in Table 37. Looking at boys and girls' responses combined, not "getting a college degree" would mean the greatest failure to 6th and 8th graders, but for 10th and 12th graders, not "being able to pursue own interests and express self creatively" would mean the greatest failure. There is a high degree of agreement among the grades, however, in rating not "having a steady, good-paying job that will last" high on the "failure" list. Apparently while attaining this goal is not considered most important to success by many 10th and 12th graders, it is still important enough so that not achieving it would mean failure.

Sex differences are quite apparent for two events, as Table 38 shows. More girls than boys indicate that not "being able to help others" and not "getting married" would mean failure.

Guidance Activities and Educational Objectives Judged Important by Children

In preparing a vocational guidance program for children, one may ask, What do the youngsters themselves want? By tailoring guidance to their wishes, a more effective counseling program may be established.

TABLE 37[†]

Events Which, If Not Attained, Meant "Failure" To Students, Regardless Of Sex[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Be Popular	4	4	6.5	4	4	8	3	3	8.5	2	2	10
College Degree	20	22	1	18	17	1	10	9	5	10	10	3.5
Talent & Ability	1	1	13.5	4	4	8	6	5	6	3	3	7
Top Student	1	1	13.5	0	0	15	0	0	14	0	0	14
Parents Want	0	0	15	1	1	13.5	1	1	11	0	0	14
Good Athlete	2	2	11.5	4	4	8	1	1	11	0	0	14
Contribute To Society	3	3	9	3	3	11.5	3	3	8.5	4	4	6
Make Name	3	3	9	5	5	6	0	0	14	2	2	10
Help Others	10	11	3	10	10	4	15	14	3	7	7	5
Responsible Job	3	3	9	3	3	11	0	0	14	2	2	10
Express Self	2	2	11.5	14	13	3	26	24	1	39	41	1
Adventurous Life	4	4	6.5	3	3	11	1	1	11	2	2	10
Get Married	8	9	4	6	6	5	21	19	2	10	10	3.5
Make Money	7	8	5	1	1	13.5	4	4	7	2	2	10
Steady Job	15	16	2	16	15	2	14	13	4	13	14	2
No Response	10	11		11	11		5	4		1	1	
	93	100		103	100		110	100		97	100	

[†] Item #29, Child Questionnaire
*Frequency of Response in Each Category
**Rank Order of Frequency

[a] Comparing just the categories "get a college degree," "express self," "get married," and "have a steady, responsible job," a Kendall rank order correlation found no relationship in the ranks.

TABLE 38[+]

Events Which, If Not Attained, Meant "Failure" To Boys And Girls

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Be Popular	1	3	3	5	3	6	1	2	0	0	3	5	1	2	1	3
College Degree	10	27	10	18	12	26	6	11	8	15	2	4	7	12	3	8
Talent & Ability	0	0	1	2	0	0	4	7	2	3	4	7	2	3	1	3
Top Student	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
Parents Want	0	0	0	0	1	2	0	0	0	0	1	2	0	0	0	0
Good Athlete	1	3	1	2	3	6	1	2	1	2	0	0	0	0	0	0
Contribute To Society	2	5	1	2	0	0	3	5	1	2	2	4	3	5	1	3
Make Name	2	5	1	2	2	4	3	5	0	0	0	0	1	2	1	3
Help Others	2	5	8	14	3	6	7	12	4	8	11	19	1	2	6	15
Responsible Job	1	3	2	4	0	0	3	5	0	0	0	0	2	3	0	0
Express Self	1	3	1	2	5	11	9	16	12	23	14	24	23	38	16	43
Adventurous Life	3	8	1	2	1	2	2	4	1	2	0	0	1	2	1	3
Get Married	3	8	5	9	1	2	5	9	7	13	14	25	4	7	6	16
Make Money	4	11	3	5	0	0	1	2	4	8	0	0	2	3	0	0
Steady Job	5	14	10	18	10	22	6	11	11	21	3	5	13	21	0	0
No Response	2	5	8	14	6	13	5	9	2	3	3	5	0	0	1	3
	37	100	56	100	47	100	56	100	53	100	57	100	60	100	37	100

[+] Item #29, Child Questionnaire

*Frequency of Response in Each Category

Five alternatives were presented to the sample and children were asked to rank them in order of preference. These were:

> Learn about different kinds of work from speakers, field trips, movies, reading job information pamphlets, and discussing career opportunities and training.
>
> Arrange to have actual work experience with different kinds of jobs.
>
> Give you interest, ability and achievement tests for use in helping you to understand your own abilities and attitudes and set wise goals for the future.
>
> Have clubs or interest groups for the purpose of. exploring different career fields.
>
> Small group discussions abput how abilities and interests develop and may relate to career success, etc.

Table 39 shows the frequency of students who ranked each activity first. In all groups, "having work experience" was ranked first in preference by most students. Except for the 8th grade, "speakers, field trips, movies, etc.," is ranked first by the second largest number of students. The younger children express a preference for clubs or interest groups which the 10th and 12th graders do not share. The alternative, small group discussions, apparently arouses little enthusiasm.

As may be seen in Table 40, there do not appear to be any major disagreements between boys and girls on which activities they prefer, although girls in the 12th grade rank "work experience" and "tests" lower than do boys. In general, however, the work experience activity does receive strong support as a guidance tool.

It was desired to learn not only what guidance activities children preferred schools to offer, but also what they felt the purpose of education in general were. Six purposes were listed, and students were asked to rank them in order of importance. The frequencies of children who ranked each of the six first are given in Table 41. It appears that while more 6th and 8th graders ranked "help me make a wise career choice and provide training

TABLE 39[+]

Order Of Desireability Of Selected Guidance Activities, Regardless Of Sex Of Respondent

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Field Trips	21	24	2	8	11	4.5	26	25	2	24	25	2
Work Experience	23	26	1	23	30	1	45	43	1	32	34	1
Tests	17	19	4	17	23	3	24	22	3	20	21	3
Clubs	19	22	3	19	25	2	2	2	5	11	12	4
Group Discussion	8	9	5	8	11	4.5	8	8	4	8	8	5
	88	100		75	100		105	100		95	100	

[+] Item #25, Child Questionnaire
*Frequency of Response in Each Category
**Rank Order of Frequency With Which Factors Were Mentioned

TABLE 40[+]

Order Of Desirability Of Selected Guidance Activities[a]

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Field Trips	8	24	13	24	4	13	4	9	12	24	14	25	12	20	12	33
Work Experience	9	26	14	26	9	30	14	31	21	42	24	44	23	39	9	25
Tests	5	15	12	22	5	17	12	27	12	24	12	22	15	25	5	14
Clubs	9	26	10	19	9	30	10	22	1	2	1	2	5	9	6	17
Group Discussion	3	9	5	9	3	10	5	11	4	8	4	7	4	7	4	11
	34	100	54	100	30	100	45	100	50	100	55	100	59	100	36	100

[a] The figures indicate the number and percent of boys and girls at each grade level who ranked a given activity as "most liked."

[+] Item #25, Child Questionnaire
*Frequency of Response in Each Category

TABLE 41+

Students' Judgments Of Six Purposes Of Education As "Most Important",[a] Regardless Of Sex Of Respondent

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Develop Problem Solving Ability	10	11	5	18	19	3	24	22	2.5	28	28	1.5
Develop Ability To Get Along W/Others	22	25	2	21	22	2	21	20	4	12	12	4
Develop Ability To Express Ideas	13	14	3	14	15	4	27	25	1	27	28	1.5
Develop My Enjoyment Of Learning	12	13	4	12	13	5	11	10	5	8	8	5
Help Me Make A Wise Career Choice; Training For Work	26	28	1	23	24	1	23	22	2.5	18	18	3
Develop My Appreciation Of Beauty And The Arts	4	4	6	6	6	6	1	1	6	3	3	6

[a] The frequency and percent of **students** ranking each purpose first are given in the table. Kendall coefficient of concordance, W = .698, s = 195.50, $p < .01$.

+Item #27, Child Questionnaire

*Frequency of Response in Each Category

**Rank Order of Frequency With Which Factors Were Mentioned

for future work" as the most important purpose of education, 10th and 12th graders more often ranked "develop my ability to express my own ideas and feelings" as most important. Following this for the 10th and 12th graders is "develop my problem solving and creative thinking abilities," while for 6th and 8th graders, "develop my ability to get along with others, provide social relationships and help me appreciate others" is ranked first by the second largest group. The two purposes which, in general, are ranked first by the fewest students are "develop my enjoyment of learning" and "develop my appreciation of the arts and beauty."

Looking at the responses of boys and girls separately, shown in Table 42, the finding of a large number of 6th and 8th graders ranking "develop ability to get along with others" first is largely attributable to girls. The percent of 6th and 8th grade girls ranking this purpose first is at least twice that of boys.

More important to boys is the purpose of "developing my enjoyment of learning," more boys than girls, in grades 6, 8 and 10, ranking this first.

The relative satisfaction which students received from "getting good grades," "being in the center of school activities," and "being in a classroom where you really are excited about learning" was also assessed. The frequency of students ranking each activity "most satisfying" is shown in Table 43. For the first two grades, "getting good grades" is ranked first by the largest proportion of students, but in grades 10 and 12, "excited about learning" is ranked first by most students. "Being in the center of school activities" is ranked first by only a small number of students. As may be seen in Table 44, 6th and 8th grade boys are in agreement in ranking "grades" first and "learning" second. This pattern also holds for 10th grade boys. But 10th grade girls most often rank "learning" first and "grades" second, the pattern also followed by both 12th grade boys and girls.

In some respects, the data presented in this section about purposes and satisfactions received from education tally with the earlier data about events considered important to success. Again, the younger children are more practical, or security conscious than are the older youngsters--the purpose of education is to help them get ready for work, and it is more satisfying to get good grades than to be excited by learning. The 10th and 12th graders, on the other hand, think it is highly important that education help them to develop their ability to express ideas and feelings, and they tend to feel that being excited by

TABLE 42[+]

Boys' And Girls' Judging Six Purposes Of Education As "Most Important"[a]

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Develop Problem Solving Ability	5	15	5	10	10	26	8	14	13	27	11	19	17	29	11	30
Develop Ability To Get Along W/Others	5	15	17	32	4	10	17	31	9	18	12	21	8	14	4	11
Develop Ability To Express Ideas	5	15	8	15	5	13	9	16	10	20	17	29	13	22	14	38
Develop My Enjoyment Of Learning	9	26	3	6	9	23	3	6	8	17	3	5	4	6	4	11
Help Me Make A Wise Career Choice; Training For Work	9	26	17	31	10	26	13	24	9	18	14	24	16	27	2	5
Develop My Appreciation Of Beauty And The Arts	1	3	3	6	1	2	5	9	0	0	1	2	1	2	2	5
	34	100	53	100	39	100	55	100	49	100	58	100	59	100	37	100

[a]The frequency and percent of boys and girls ranking each purpose first are given in the table.

[+]Item #27, Child Questionnaire
*Frequency of Response in Each Category

TABLE 43[+]

Students Ranking Activities "Most Satisfying," Regardless Of Sex Of Respondent[a]

	Grade 6			Grade 8			Grade 10			Grade 12		
	F*	%	R**	F	%	R	F	%	R	F	%	R
Grades	49	58	1	50	54	1	44	41	2	28	29	2
Social	9	10	3	8	9	3	7	7	3	12	12	3
Learning	27	32	2	35	37	2	56	52	1	57	59	1
	85	100		93	100		107	100		97	100	

[a] The frequency of students ranking each activity first is shown.
$X^2 = 24.45$, df = 6, p .001.

[+] Item #30, Child Questionnaire
*Frequency of Response in Each Category
**Rank Order of Frequency

TABLE 44[+]

Students Ranking Activities Most Satisfying, By Sex[a]

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Grades	20	57	29	58	21	51	29	56	29	58	15	26	19	32	9	24
Social	5	14	4	8	5	12	3	6	2	4	5	9	8	13	4	11
Learning	10	29	17	34	15	37	20	38	19	38	37	65	33	55	24	65
	35	100	50	100	41	100	52	100	50	100	57	100	60	100	37	100

[a] Frequency of students ranking each activity first is shown.

[+] Item #30, Child Questionnaire
*Frequency of Response in Each Category

learning is more satisfying than getting good grades.

The students also were asked to choose the one activity --getting good grades, being in social activity, or geing excited by learning--which was most important. There was some expectation, on the basis of earlier research done by Palo Alto school district personnel, that there would not necessarily be a high degree of agreement between what students found satisfying and what they considered important. This speculation was not held up--there was a high degree of agreement between what they rated most satisfying and most important (Table 45).

Early Childhood Interests and Job Choice

Information was gathered about early childhood interests and activities of children, in order to determine whether there is any relationship between these interests and activities and the kind of occupation selected. Previous work by Tyler (1964) strongly indicates that a relationship does exist between masculine interests and job choice. A further examination of possible relationships, for both masculine and feminine interests, was undertaken in the study reported here. A list of 26 activities (e.g., playing with cars, trucks, airplanes, go-carts, etc.; playing hopscotch, jacks, jump-rope, etc.) was given to the children, and they were asked to indicate which activities they had enjoyed very much at different ages as they were growing up. The activities and interests checked then were examined in relation to the occupation choice indicated by each child. The responses to this item, and a discussion of any relationships indicated, is included in Section III of the curriculum materials, which are included in a separate volume of this final report.

Connotative Meaning of Selected Concepts for Children

The connotative meaning--how individuals "feel" about certain topics or concepts--of selected concepts related to career planning was assessed using the semantic differential technique, as discussed in the Method and Procedure section. Four concepts were rated by children only, while seven were rated by both parents and children. The four concepts rated by children only are discussed here, while those rated by both parents and children will be discussed in a later results section.

The four concepts rated only by children were MYSELF, MY IDEAL SELF, MY FUTURE, and MY FUTURE WORK. The purpose of assessing the connotative meaning of these four was to determine

TABLE 45[+]

Degree Of Agreement Between Activity Ranked "Most Important" and "Most Satisfying" By Boys and Girls

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1[a]	24	75	37	77	22	73	37	79	37	84	37	74	41	73	30	94
2[b]	7	22	8	17	5	17	9	19	6	14	11	22	10	18	2	6
3[c]	1	3	3	6	3	10	1	2	1	2	2	4	5	9	0	0
	34	100	48	100	30	100	47	100	44	100	50	100	56	100	32	100

[a] What was ranked "most satisfying" was also ranked "most important."
[b] What was ranked "most satisfying" was ranked "2nd most important."
[c] What was ranked "most satisfying" was ranked "3rd most important."

[+] Item #31, Child Questionnaire.

the relationship between how children felt about themselves as they are, as opposed to how they felt their ideal self should be, and to learn how positively or negatively they felt about their future and their future careers.

Each concept was rated against 11 bipolar adjectives (e.g., good-bad). Each adjective could be checked on a 7-point scale ranging from most positive to most negative. The 11 adjectives were selected on the basis of previous factor analytic work to represent the three factors most often extracted when the semantic differential technique was used--an Evaluative factor, a Potency factor, and an Activity factor (cf. Osgood, et. al., 1957, for a discussion of this technique). Despite the generality of findings, there have been departures from this three-factor structure, and so the ratings of the concepts by the present sample of boys and girls was subjected to further factor analysis. As expected, a major factor extracted for boys and girls at all grade levels was the Evaluative. Three adjective pairs loaded consistently and highly on this factor for all children--pleasant-unpleasant, good-bad, and valuable-worthless. A single Evaluative factor score was formed for each student by summing his ratings of each of these three adjectives. This score is defined by Osgood, et. al., as a measure of attitude, and is treated here as such.

Rather than finding two separate factors of Activity and Potency, adjectives loaded highly on one factor which may be labelled "Dynamism." Three adjectives loaded consistently on this factor--strong-weak, fast-slow, and active-passive. A single dynamism score was computed for each subject by summing his ratings of each of the three adjectives. These scores--the Evaluative factor score and the Dynamism factor score--were the dependent variables in the analyses of variance discussed below.

The first comparison of major interest was made between ratings of MY IDEAL SELF and MYSELF. Ratings of these two concepts by boys and by girls and between the four grade levels also were examined. The results of these comparisons, with the Evaluative factor score as the dependent variable, are shown in Table 46. Perhaps not surprisingly, there is a highly significant difference in attitude toward MY IDEAL SELF and MYSELF--one's ideal self would by more positive than is one's real self. Attitude toward MYSELF is slightly favorable (a score of 3 is most favorable, while 9 is neutral). Inspection of cell means shows that no group mean is negative.

TABLE 46[+]

Evaluative Scores of Children Comparing IDEAL SELF vs. MYSELF

Sex

	Boys		Girls		
	Ideal Self	Myself	Ideal Self	Myself	
Grade 6	4.97	6.95	4.86	8.27	6.26
Grade 8	4.49	7.95	5.42	8.59	6.62
Grade 10	5.70	8.92	4.30	7.92	6.71
Grade 12	4.97	7.70	4.95	8.14	6.44
	5.03	7.88	4.88	8.23	

Boys	Girls	Ideal Self	Myself
6.46	6.56	4.96	8.05

Sources of Variance	df	Sums of Scores	Means of Scores	
Sex	1	1.520	1.520	
Grade	3	17.243	5.748	
Concepts	1	1417.324	1417.324	238.687[a]
Sex x Grade	3	90.723	30.241	2.600[b]
Sex x Concepts	1	9.250	9.250	1.558
Grade x Comcepts	3	12.378	4.126	
Sex x Grade x Concepts	3	14.020	4.673	
Error	288	3349.48649	11.630	
	288	1710.02703	5.938	
Total	591	6621.97297		

[a] df = 1,288; $p < .0001$

[b] df = 3,286; $p < .05$

[+] n = 37, range is from 3-21, 3 = most favorable, 9 = neutral.

There is also a significant sex by grade interaction. This may be largely accounted for at the 10th grade, where boys' attitude is less favorable than is girls' attitude (mean for both concepts for boys is 7.31; for girls, 6.11). At the other grade levels, boys' attitude is somewhat more favorable than is girls' attitude.

While there was no difference between boys and girls in their attitudes (assessed by the Evaluative factor scores) toward these two concepts, when the Dynamism score was analyzed a significant sex main effect did appear. Table 47 shows the results of the analysis of Dynamism scores. Clearly, boys judge themselves and their ideal selves to be more "dynamic" than do girls. This may reflect a cultural truism that boys are more active and strong than are girls, while girls are "supposed to be" less active and less strong. In no case does a group rate itself to be on the "not dynamic" side of the scale, however.

Again there is a between-concepts difference, children rating their ideal selves as more dynamic than their real selves. Boys, however, tend to judge their ideal selves as more dynamic than do girls.

The results of these two analyses indicates that, on the average, students think of themselves in a positive way, and they feel they are at least fairly "dynamic." Whether the discrepancy between judgment of MYSELF and MY IDEAL SELF is great enough to indicate any felt problems by any given child could only be determined by examining individual scores, rather than group means. Determining the value of such a procedure for getting an early indication of children who have or may have problems of personal adjustment would require further research.

The other two concepts--MY FUTURE and MY FUTURE WORK--were examined separately. Table 48 shows the results of the anova of MY FUTURE with the Evaluative score as the dependent variable. Again, attitudes are positive, no group having a mean score less positive than 6. Analysis using the Dynamism scores, given in Table 49, shows that children regard their futures as fairly dynamic, as well. There are no significant differences between sexes or grade level.

A positive attitude also is exhibited by children toward the concept MY FUTURE WORK, and Dynamism scores also are fairly high, as Tables 50 and 51 show. There is an indication of a

TABLE 47[+]

Dynamism Scores of Children Comparing IDEAL SELF vs. MYSELF

Sex

	Boys		Girls		
	Ideal Self	Myself	Ideal Self	Myself	
Grade 6	4.59	6.11	6.65	7.65	6.25
Grade 8	5.22	7.30	6.35	8.95	6.95
Grade 10	5.49	7.86	6.62	8.35	7.08
Grade 12	5.38	7.24	6.51	7.89	6.76
	5.17	7.13	6.53	8.21	

Boys	Girls	Ideal Self	Myself+
6.15	7.37	5.85	7.67

Sources of Variance	df	Sums of Squares	Mean Squares	F
Sex	1	221.358	221.358	22.498
Grade	3	59.250	19.750	2.007
Concepts	1	488.926	488.926	96.779[a]
Sex x Grade	3	23.601	7.867	.00
Sex x Concepts	1	2.980	2.980	.00
Grade x Concepts	3	25.142	8.381	1.659
Sex x Grade x Concepts	3	7.980	2.660	
Error	288	2833.730	9.839	
Error	288	1454.973	5.052	
Total	591			

[+] n = 37,,range is from 3-21. 3 = most favorable, 9 = neutral

[a] $p < .0001$

TABLE 48[+]

Evaluative Scores of Children, MY FUTURE

	Boys	Girls	Marginals
Grade 6	5.70	5.32	5.51
Grade 8	5.68	6.24	5.96
Grade 10	5.94	5.30	5.62
Grade 12	6.27	5.35	5.81
	5.90	5.55	5.73

Sources of Variance	df	Sums of Squares	Mean Square	F
Sex	1	8.787	8.787	
Grade	3	8.713	2.904	
Sex x Grade	3	23.226	7.742	
Error	288	2904.108	10.084	
Total	295	2944.834		

[+] n = 37, range is from 3-21, 3 = most favorable, 9 = neutral.

TABLE 49[+]

Dynamism Scores of Children, MY FUTURE

	Boys	Girls	Marginals
Grade 6	7.11	7.73	7.42
Grade 8	6.62	7.65	7.14
Grade 10	6.97	7.54	7.26
Grade 12	7.62	7.30	7.46
	7.08	7.55	7.32

Source of Variance	df	Sums of Squares	Means of Squares	F
Sex	1	16.554	16.554	1.758
Grade	3	4.986	1.662	
Sex x Grade	3	18.014	6.004	
Error	288	2712.594	9.419	
Total	295	2752.149		

[+] n = 37, range is from 3-21, with 3 = most favorable, 9 = neutral.

TABLE 50[+]

Evaluative Scores of Children, MY FUTURE WORK

	Boys	Girls	Marginals
Grade 6	5.51	5.03	5.27
Grade 8	5.46	5.76	5.61
Grade 10	5.84	5.00	5.42
Grade 12	5.40	5.24	5.32
	5.55	5.26	5.40

Sources of Variance	df	Sums of Squares	Means of Squares	F
Sex	1	6.540	6.540	
Grade	3	4.892	1.631	
Sex x Grade	3	12.946	4.315	
Error	288	2302.973	8.000	
Total	295	2327.351		

[+] n = 37, range is from 3-21, with 3 = most favorable, 9 = neutral.

TABLE 51[+]

Dynamism Scores of Children, MY FUTURE WORK

	Boys	Girls	Marginals
Grade 6	6.11	7.59	6.85
Grade 8	6.76	7.57	7.16
Grade 10	6.05	6.59	6.32
Grade 12	6.59	6.51	6.55
	6.38	7.07	6.72

Source of Variance	df	Sums of Squares	Means of Squares	F
Sex	1	35.149	35.149	3.812[a]
Grade	3	29.365	9.788	1.062
Sex x Grade	3	23.419	7.806	
Error	288	2655.351	9.220	
Total	295	2743.284		

[+] n = 37, range is from 3-21, with 3 = most favorable, 9 = neutral.

[a] $.10 < p < .05$

difference between boys in their Dynamism scores, boys rating MY FUTURE WORK as somewhat more dynamic than do girls ($.10 < p < .05$). This again may reflect a cultural factor--boys generally work in more active occupations than do girls.

The general impression gained from the analyses of these four concepts is that these children think well of themselves, although they feel that they could be better, and that the future and their future work look bright to them. There will be individuals who do not fit this pattern, of course, and it may be that such boys and girls are experiencing, or will experience in the future, some difficulties of personal adjustment.

Children's Feelings in Four Different Situations

In an attempt to make children aware that they react differently to different situations, and to lead them to greater understanding of their reactions, a semantic differential-type instrument was included on which children rated how they felt in four different situations. These were: With Friends, Alone, With My Family, and In The Classroom. Students indicated how they felt in each of these situations by rating 8 bipolar adjectives on a 5-point scale. The adjectives were: confident, happy, curious, intelligent, liked, satisfied, interested, and successful.

The means for each adjective in each situation, for boys and girls at the four different grade levels are given in detail in Volume III, Section IV, 2.1. In general, it may be stated that means were positive--no mean for any group was neutral or on the negative side of the rating scale for any adjective or situation. As the attitudinal and dynamism data have already suggested, the students in this sample appear to "feel pretty good" about themselves, and in a variety of situations.

Summary

This section has presented very briefly the responses of boys and girls in grades 6, 8, 10, and 12 to a questionnaire designed to gather information about children's career plans, interests, attitudes, and aspirations. These data were used to develop curriculum materials designed to increase children's self-understanding and to lead them toward more appropriate career choices. The curriculum materials are presented in Volume III of this final report.

IV. RESULTS: COMPARISON OF PARENT-CHILD RESPONSES TO SELECTED QUESTIONNAIRE ITEMS

Much the same questionnaire as was filled out by children was sent to all parents of the children in the sample, and one parent was asked to respond and return the completed form. Questionnaires were sent to 362 parents; 228, or 63% were returned. Six questionnaires which were returned were not completed, and were omitted from further analysis. Each parent questionnaire was matched with the corresponding child questionnaire and, for most of the items, chi square analyses comparing the responses of parents and their children were done. The analyses were run separately for each sex, so that the responses of boys were compared with the responses of their parents, and the responses of girls were compared with those of their parents. The table for each item discussed shows the results of both these separate analyses. The heading "Boys" refers to the results of the analysis of responses of boys and their parents, and the heading "Girls" refers to the responses of girls and their parents.

The frequencies in many cells are small, and significance tests generally were not done. Statements made on the basis of this small sample must be taken as tentative, requiring further data for support.

Ratings of several issues, made using the semantic differential technique, were subjected to factor analysis and analysis of variance. These procedures are discussed in the section below which presents their results.

Parent-Child Perceptions of the State of the Child's Career Planning

A rather surprising proportion of parents and their children agree that the child has made a career choice, as Table 52 shows, and a somewhat smaller percent agree that the child has not made a choice. Perhaps of more interest is the finding that many children say they have made a choice, but their parents say they have not. The reverse is not so often true. Although the frequencies are small, there is a suggestion that 6th and 8th grade children, more often than do 10th and 12 graders, say they have made a job choice, but their parents disagree with them. Parents may be more realistic in their assessment of whether a

TABLE 52[+]

Parent-Child Perception of Whether Child Has Made a Career Choice[a]

		Grade 6				Grade 8				Grade 10				Grade 12			
		Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
Child Says	Parent Says	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Yes	Yes	3	12	9	32	11	37	16	52	10	34	14	48	13	43	10	50
Yes	No	10	40	12	43	8	37	6	19	6	21	4	14	6	20	1	5
No	Yes	2	8	1	4	1	3	4	13	4	14	2	7	5	17	4	20
No	No	10	40	6	21	10	33	5	16	9	31	9	31	6	20	5	25
		25	100	28	100	30	100	31	100	29	100	29	100	30	100	20	100

[a] "Yes" and "Maybe" categories are combined into one "Yes" category.
Expected frequencies in many cells are too small to allow chi square analysis.

[+] Questionnaire Item #4
*Frequency of Response in Each Category

a child this young has made a definite decision, and the lack of agreement thus does not necessarily indicate a lack of knowledge on the part of the parent of the child's plan.

Respondents next were asked to write in the job the child has chosen, if any. The responses were coded, using the system explained previously (also see Appendix C), and these coded responses compared for each parent-child pair.

A large proportion of parents and their children do not agree on what job the child has chosen, as Table 53 shows. The "Parent and Child Don't Agree" category includes comparisons in which either the parent or the child did not indicate any job choice, as well as comparisons in which one respondent gave one job choice, while the other gave another job choice. The percent of respondents agreeing increases in the 12th grade, perhaps indicating more firm career choices at that age and more interchange of information between parent and child.

Agreement on what job would be best for the child appears rather low except for 10th and 12th grade girls as Table 54 shows. Again, the "Parent and Child Disagree" category includes comparisons in which one respondent gave no codeable response. In many cases, a parent declined to state what job would be best, saying, "Whatever he finds satisfaction in," or simply, "It's up to him." A lack of response by a parent thus may indicate a liberal, open-door policy by the parent toward the child's career plans, rather than a lack of information or thought. Looking at those cases where both parent and child responded, 12 of the 53 6th grade parent-child pairs, 12 of the 59 8th grade pairs, 14 of the 58 10th grade, and 9 of the 51 12th grade pairs did not agree in what they said would be the best job for the child.[6]

The low degree of agreement found when a comparison was made between what job the parent said would be best for the child and what the child said would be best for him is in sharp contrast to responses of parents and children to another,

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[6] There is no general pattern apparent in the disagreement on either the "job chosen" or the "best job" items. Since the content of the disagreement (i.e., what the parent said and what the child said would be the best job) is not of main interest here, the data are not show in that form.

TABLE 53[+]

Parent-Child Agreement on Child's Job Choice

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Agree on Choice	5	20	5	18	8	27	12	39	10	34	13	45	15	50	14	67
Disagree on Choice	12	48	21	75	15	50	15	48	12	41	10	34	11	37	3	14
Neither Indicate a Choice	8	32	2	7	7	23	4	13	7	25	6	21	4	13	4	19
	25	100	28	100	30	100	31	100	29	100	29	100	30	100	21	100

[+] Questionnaire Item #5

[*] Frequency of Response in Each Category

TABLE 54[+]

Parent-Child Agreement on What Job Would Be "Best" for Child

	Grade 6				Grade 8				Grade 10				Grade 12			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Agree	4	16	4	14	2	7	8	27	6	21	16	55	4	13	9	43
Disagree	21	84	20	72	26	90	20	67	20	69	13	45	25	84	10	48
Neither Indicates a "Best" Job	-	-	4	14	1	3	2	6	3	10	-	-	1	3	2	9
	25	100	28	100	29	100	30	100	29	100	29	100	30	100	21	100

[+] Questionnaire Item #20

[*] Frequency of Response in Each Category

seemingly similar, question. Parents and children were asked how much they agreed on what would be the best career choice for the child. As Table 55 shows, a large proportion of parents and children at all grade levels says there is agreement (responses were on a 5-point equal-appearing interval scale, but were dichtomotized into "agree" and "little or no agreement" for the purposes of this comparison).

When parents and children are asked separately to write down what would be the best job choice for the child, the parent and child are more likely than not to write down different "best" choices. On the other hand, when parent and child are asked whether they agree or not, they are likely to say that they do. In short, while parent and child may think there is agreement between them, there does not in fact appear to be agreement.

Respondents also were asked to check, on a list of nine alternatives, reasons why they thought the job would be best for the child. As discussed in Section III of this volume, many respondents answered this item even though they had not listed a "best job." The responses may be more validly interpreted as an indication of characteristics of the child which may or may not be related to a "best job" for him. Table 56 gives the responses for each alternative. Only the key words of each alternative is given to conserve space. The complete wording is in questionnaire item 21, in Appendix A. Most often checked by both parents and children was the alternative, "Is interested and finds enjoyment and personal satisfaction in it," although a number of children check this whose parents do not. On several other alternatives, a parent often gives his child credit for an attribute but the child does not. Thus a number of parents check "Is intelligent," "Is inquisitive or inventive," "Is concerned for others and wants to help," "Gets along well with others," "Is careful, neat and orderly," "Has talent, skills, or background for it," "Can express self easily," and "Is a good leader or organizer," while their children do not check these characteristics. The reverse--where a child checks an alternative but the parent does not--is less often the case. There is a suggestion that when it does occur, it is the younger children, the 6th graders rather than older children, who feel they have a particular trait while their parents do not indicate it. For example, a number of 6th graders indicate that they "get along well with others," but parents do not; 30% of the 6th graders also check "is concerned

TABLE 55[+]

Parent-Child Perception of How Much Parent and Child Agree on "Best Career" For Child[a]

		Grade 6				Grade 8				Grade 10				Grade 12			
		Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
Child says	Parent says	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Agreement		14	82	15	88	17	74	24	89	24	92	23	92	24	89	15	83
Agree	Little or no	1	6	-	-	3	13	2	7	1	4	1	4	2	7	1	6
Little or no	Agree	2	12	2	12	3	13	1	4	1	4	1	4	1	4	2	11
Little or no Agreement		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	100	17	100	23	100	27	100	26	100	25	100	27	100	18	100
No response		8		11		7		4		3		4		3		3	

[a] A 5-point scale was dichotomized, "great deal", quite a bit", and "some" becoming the "agreement" category, and "very little", and "none" becoming the "little or no agreement" category.

[+] Questionnaire Item #23
*Frequency of Response in Each Category

TABLE 56[+]

Parent-Child Perception of Child Attributes:[a]
(Page 1 of 5 pages)

Is Interested[b]

Child	Parent	Grade 6 F*	Grade 6 %	Grade 8 F	Grade 8 %	Grade 10 F	Grade 10 %	Grade 12 F	Grade 12 %
Check	Check	20	38	25	41	36	62	33	65
Check	Doesn't Check	19	36	19	31	13	22	9	18
Doesn't Check	Check	7	13	12	20	4	7	4	8
Doesn't	Check	7	13	5	8	5	9	5	9
		53	100	61	100	58	100	51	100

Is Intelligent[c]

Child	Parent	Grade 6 F*	Grade 6 %	Grade 8 F	Grade 8 %	Grade 10 F	Grade 10 %	Grade 12 F	Grade 12 %
Check	Check	8	15	8	13	11	19	19	37
Check	Doesn't Check	3	6	1	2	5	9	7	14
Doesn't Check	Check	13	24	29	48	25	43	14	27
Doesn't	Check	29	55	23	37	17	29	11	22
		53	100	61	100	58	100	51	100

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[a] The question asked what attributes suited a child for the job felt best for him, but responses were not always given using this frame of reference. See text for a discussion of this point.

[b] $\chi^2 = 17.19$, df =9, $.10 < p < .05$

[c] $\chi^2 = 22.33$, df =6, $p < .01$

[+] Questionnaire Item #21

*Frequency of Response in Each Category

TABLE 56[+]

Attributes of Child (Continued): (Page 2 of 5 pages)

Is Inquisitive

Child	Parent	Grade 6 F*	Grade 6 %	Grade 8 F	Grade 8 %	Grade 10 F	Grade 10 %	Grade 12 F	Grade 12 %
Check	Check	5	9	8	13	8	14	17	33
Check	Doesn't Check	5	9	2	3	8	14	6	12
Doesn't Check	Check	16	31	17	28	13	22	9	18
Doesn't Check	Doesn't Check	27	51	34	56	29	50	19	37
		53	100	61	100	58	100	51	100

Has Concern For Others

Child	Parent	Grade 6 F*	Grade 6 %	Grade 8 F	Grade 8 %	Grade 10 F	Grade 10 %	Grade 12 F	Grade 12 %
Check	Check	7	13	12	20	12	21	8	16
Check	Doesn't Check	16	30	8	13	5	9	5	10
Doesn't Check	Check	9	17	10	16	9	15	13	25
Doesn't Check	Doesn't Check	21	40	31	51	32	55	25	49
		53	100	61	100	58	100	51	100

[+] Questionnaire Item #21

*Frequency of Response in Each Category

TABLE 56[+]

Attributes Of Child (Continued):
(Page 3 of 5 pages)

Get Along With Others

Child	Parent	Grade 6		Grade 8		Grade 10		Grade 12	
		F*	%	F	%	F	%	F	%
Check		5	9	4	7	8	14	11	22
Check	Doesn't Check	12	23	5	8	8	14	3	6
Doesn't Check	Check	8	15	23	38	12	20	18	35
Doesn't	Check	28	53	29	47	30	52	19	37
		53	100	61	100	58	100	51	100

Is Careful

Child	Parent	Grade 6		Grade 8		Grade 10		Grade 12	
		F*	%	F	%	F	%	F	%
Check		4	8	2	3	10	17	6	12
Check	Doesn't Check	7	13	4	7	3	5	7	14
Doesn't Check	Check	9	17	11	18	12	21	9	18
Doesn't	Check	33	62	44	72	33	57	29	56
		53	100	61	100	58	100	51	100

[+] Questionnaire Item #21

*Frequency of Response in Each Category

TABLE 56+

Attributes Of Child (Continued):
(Page 4 of 5 pages)

Has Talent[1]

Child	Parent	Grade 6 F*	Grade 6 %	Grade 8 F	Grade 8 %	Grade 10 F	Grade 10 %	Grade 12 F	Grade 12 %
Check	Check	9	17	12	20	22	38	25	49
Check	Doesn't Check	12	23	10	16	4	7	7	14
Doesn't Check	Check	8	15	13	21	15	26	7	14
Doesn't	Check	24	45	26	43	17	29	12	23
		53	100	61	100	58	100	51	100

Expresses Self Well

Child	Parent	Grade 6 F*	Grade 6 %	Grade 8 F	Grade 8 %	Grade 10 F	Grade 10 %	Grade 12 F	Grade 12 %
Check	Check	3	6	7	12	7	12	4	8
Check	Doesn't Check	5	9	4	6	3	5	4	8
Doesn't Check	Check	10	19	12	20	10	17	15	29
Doesn't	Check	35	66	38	62	38	66	28	55
		53	100	61	100	58	100	61	100

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[1] $\chi^2=29.11$, df=9, $p<.001$

+Questionnaire Item #21
*Frequency of Response in Each Category

TABLE 56[+]

Attributes Of Child (Continued):
(Page 5 of 5 pages)

Is a Leader

Child	Parent	Grade 6 F#	Grade 6 %	Grade 8 F	Grade 8 %	Grade 10 F	Grade 10 %	Grade 12 F	Grade 12 %
Check		1	2	1	2	3	5	4	8
Check	Doesn't Check	4	8	2	3	4	7	5	10
Doesn't Check	Check	7	13	12	20	9	16	10	20
Doesn't Check	Doesn't Check	41	77	46	75	42	72	32	62
		53	100	61	100	58	100	61	100

[+] Questionnaire Item #21
#Frequency of Response in Each Category

for others and wants to help," but their parents do not. Whether the children or the parents are misperceiving cannot, of course, be determined, but if a real discrepancy exists between how the child sees himself and how the parent sees him, difficulties could arise between them.

If the child had not made a career choice, he and his parent were asked to check any of nine reasons why he had not reached a decision. These data are shown in Table 57. Again, only the key words of each alternative are shown in the table. At the lower grades, "too young to decide yet" is often given by both parents and children. At all grade levels, even in the 10th and 12th grade, there are a number of children who check this alternative, but whose parents do not, another indication, perhaps, of a lack of awareness by the parent of the child's feelings. The item, "Needs to explore more fields before deciding" is checked by a fairly large proportion of respondents at all grade levels. Thirty percent and more of the 6th and 8th grade children check this whose parents do not indicate that this is needed. One other alternative is worth noting--"unsure of self and own abilities." In the 6th and 8th grades, few parents and children agree in checking this, but from 19% to 33% of the children check it, but their parents do not. A lack of knowledge by parents of their 6th and 8th graders is suggested here, as it has been for other responses reported above.

As reported in Section III of this volume, this sample of youngsters is largely college-bound. The agreement between parents and children in this plan is almost complete, although the parent and child may not be in complete agreement on whether the child plans to go first to a junior college, or directly to four year college, or, eventually, to graduate school. Because of the high degree of agreement at all grade levels on this item, the data are not presented here. The parent-child perception of what parents want children to do after high school is shown in Table 58. The percent of children and parents who agree on this item is not great, 41% (of 10th grade boys) being the largest proportion of parents and children agreeing. There are many "no responses" to this question, also, perhaps indicating a real lack of effective communication between parent and child. A number of parents wrote in, in response to this item, "I want him to do whatever he wants to do," or similar answers. Rather than a lack of communication, then, the few responses may reflect this concern of the parent, and the child's awareness that his parent wants him to do "what's best for him."

TABLE 57[+]

Parent-Child Perception of Reasons Why Child Has Not Made a Career Choice: 6th Grade Boys and Girls[a]

(Page 1 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks				Neither Checks			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Too young	9	36	7	25	1	4	3	11	10	40	12	43	5	20	6	21
Need to Explore more	8	32	4	14	2	8	7	25	11	44	9	32	4	16	8	29
Little guidance	-	-	-	-	-	-	1	4	7	28	3	10	18	72	24	86
Social activities	-	-	-	-	3	12	2	7	4	16	2	7	18	72	24	86
Busy with Friends	-	-	-	-	-	-	-	-	3	12	1	4	22	88	27	96
Unsure of self	2	8	1	4	1	4	2	7	7	28	6	21	15	60	19	68
Pers. problems	-	-	-	-	1	4	-	-	-	-	-	-	24	96	28	100
No interest	-	-	-	-	-	-	-	-	3	12	2	7	22	88	26	93
Sports	-	-	-	-	3	12	-	-	3	12	3	11	19	76	25	89

[a] Percents for each class and sex are calculated on the basis of the number of boys or girls in that class.

[+] Questionnaire Item #10
*Frequency of Response in Each Category

TABLE 57[+]

Reasons for No Career Choice (Continued):
8th Grade Boys and Girls

(Page 2 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks				Neither Checks			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Too young	6	20	-	-	-	-	1	3	9	30	16	52	15	50	14	45
Need to Explore more	9	30	6	19	3	10	2	6	9	30	12	39	9	30	11	36
Little guidance	-	-	-	-	2	7	-	-	9	30	5	16	19	63	26	84
Social activities	-	-	-	-	1	3	-	-	2	7	6	19	27	90	25	81
Busy with Friends	1	3	-	-	-	-	-	-	4	13	4	13	25	84	27	87
Unsure of self	4	13	5	16	5	17	2	6	10	33	6	19	11	37	18	59
Pers. problems	-	-	-	-	-	-	-	-	1	3	2	6	29	97	29	94
No interest	-	-	-	-	-	-	2	6	5	17	2	6	25	83	27	88
Sports	1	3	-	-	-	-	-	-	5	17	1	3	24	80	30	97

[+]Questionnaire Item #10

*Frequency of Response in Each Category

TABLE 57[+]

Reasons for No Career Choice (Continued): 10th Grade Boys and Girls
(Page 3 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks				Neither Checks			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Too young	2	7	3	10	1	3	-	-	9	31	7	24	17	59	19	66
Need to Explore more	13	45	10	34	6	21	2	7	2	7	8	28	8	27	9	31
Little guidance	-	-	-	-	3	10	-	-	2	7	5	17	24	83	24	83
Social activities	-	-	-	-	3	10	-	-	2	7	6	21	24	83	23	79
Busy with Friends	-	-	-	-	1	3	-	-	3	10	4	14	25	87	25	86
Unsure of self	7	24	3	10	7	24	5	17	4	14	5	17	11	38	16	56
Pers. problems	-	-	-	-	2	7	1	3	-	-	1	3	27	93	27	94
No interest	1	3	-	-	2	7	1	3	3	10	-	-	23	80	28	97
Sports	2	7	-	-	2	7	-	-	2	7	2	7	23	79	27	93

[+] Questionnaire Item #10

*Frequency of Response in Each Category

TABLE 57[+]

Reasons for No Career Choice (Continued): 12th Grade Boys and Girls

(Page 4 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks				Neither Checks			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Too young	-	-	1	5	1	3	3	14	5	17	4	19	24	80	13	62
Need to Explore more	10	33	6	29	3	10	1	5	3	10	7	33	14	47	7	33
Little guidance	-	-	-	-	2	7	2	10	2	7	2	10	26	86	17	80
Social activities	2	7	-	-	-	-	2	10	3	10	1	5	25	83	18	85
Busy with Friends	-	-	-	-	-	-	-	-	-	-	1	5	30	100	20	95
Unsure of self	4	13	4	19	5	17	3	14	1	3	4	19	20	67	10	48
Pers. problems	-	-	-	-	1	3	1	5	-	-	1	5	29	97	19	90
No interest	1	3	-	-	2	7	1	5	1	3	-	-	26	87	20	95
Sports	2	7	-	-	1	3	1	5	4	13	-	-	23	77	20	95

[+]Questionnaire Item #10
*Frequency of Response in Each Category

TABLE 58[+]

Parent-Child Perception of What Parent Wants Child to do After High School 6th Grade Boys and Girls[a]

(Page 1 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks			
	Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%
Get a teady job	-	-	-	-	1	4	-	-	-	-	-	-
Enter business as trainee	-	-	-	-	-	-	1	3	-	-	-	-
Technical training	-	-	-	-	-	-	1	3	1	4	1	3
Junior college	1	4	-	-	3	12	3	11	-	-	3	11
J.C. to 4-year college	4	16	1	4	4	16	6	22	4	16	7	26
Four-year college	4	16	3	11	3	12	6	22	7	28	7	26
Graduate school	2	8	1	4	-	-	4	15	2	8	2	7
Marriage	-	-	-	-	-	-	1	4	-	-	-	-
Military	-	-	-	-	2	8	-	-	-	-	-	-

[a] Percents for each class and sex are calculated on the basis of the number of boys or girls in that class.

[+] Questionnaire Item #18
*Frequency of Response in Each Category

TABLE 58+

After High School (Continued): 8th Grade Boys and Girls

(Page 2 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks			
	Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%
Get a steady job	-	-	-	-	-	-	1	3	-	-	-	-
Enter business as trainee	-	-	-	-	-	-	-	-	-	-	-	-
Technical training	-	-	-	-	-	-	-	-	1	3	-	-
Junior college	-	-	-	-	1	3	2	3	1	3	2	3
J.C. to 4-year college	6	20	2	7	4	13	1	3	-	-	7	23
Four-year college	6	20	13	43	7	23	5	17	7	23	5	17
Graduate school	1	3	-	-	-	-	4	13	6	20	1	3
Marriage	-	-	-	-	-	-	-	-	-	-	-	-
Military	-	-	-	-	-	-	-	-	-	-	-	-

+Questionnaire Item #18
*Frequency of Response in Each Category

TABLE 58⁺

After High School (Continued): 10th Grade Boys and Girls

(Page 3 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks			
	Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%
Get a steady job	-	-	-	-	-	-	1	3	-	-	-	-
Enter business as trainee	-	-	-	-	-	-	1	3	-	-	-	-
Technical training	-	-	-	-	-	-	1	3	1	3	-	-
Junior college	1	3	-	-	-	-	1	3	-	-	2	7
J.C. to 4-year college	2	7	5	17	3	10	2	7	6	20	3	10
Four-year college	12	41	11	38	6	20	4	14	4	14	5	17
Graduate school	1	3	-	-	1	3	2	7	-	-	1	3
Marriage	-	-	-	-	-	-	-	-	-	-	-	-
Military	-	-	-	-	-	-	-	-	1	3	-	-

⁺Questionnaire Item #18
*Frequency of Response in Each Category

TABLE 58[+]

After High School (Continued): 12th Grade Boys and Girls

(Page 4 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks			
	Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%
Get a steady job	-	-	-	-	-	-	-	-	-	-	-	-
Enter business as trainee	-	-	-	-	-	-	-	-	-	-	-	-
Technical training	-	-	1	5	-	-	-	-	-	-	-	-
Junior college	-	-	-	-	-	-	-	-	-	-	1	3
J.C. to 4-year college	4	13	1	5	1	3	1	5	3	10	2	10
Four-year college	12	40	11	52	7	23	4	19	3	10	1	5
Graduate school	2	7	1	5	2	7	-	-	5	17	2	10
Marriage	-	-	-	-	-	-	-	-	-	-	-	-
Military	-	-	-	-	-	-	-	-	-	-	-	-

[+] Questionnaire Item #18

*Frequency of Response in Each Category

Parent-Child Perception of Influences in Child's Career Thinking

Asked to indicate who, of a list of nine alternatives, is the strongest influence in the child's career planning "Father" and "Mother" were most often mentioned of the nine, as may be seen in Table 59. Only a small percentage of the parents and children agreed on this item, many children checking either Father or Mother whose parents do not do so. On the other hand, several parents indicate that Father or Mother is the strongest influence, but their children do not do so.

Considerable lack of agreement between parents and children also appears when they are asked what events may have influenced the children's career interest or choice. As Table 60 shows, the largest percentage of parents and children agree in saying "Personal interest and enjoyment" was an influence, not a surprising finding. There also appears to be a trend for more parents and children in grades 10 and 12 to agree that "Talent or ability" are an influencing factor. For this factor, and for several others, as inspection of the data indicate, there are many children who check an influence, whose parents do not do so. The reverse is also often the case.

Several questions were asked to which responses were made on a 5-point equal-appearing interval scale. To facilitate comparing parent-child agreement, the scale was dichotomized. The method used is explained in a footnote to each table of data on these items.

The percentage of parents and their children who agree that parents have given their children some help in thinking about possible future careers ranges from 40% (for 6th grade boys) to 81% (for 12th grade boys), as Table 61 shows. There are a number of children who feel that their parents have helped, but whose parents do not agree, and several parents who feel they have given help but whose children do not agree.

A majority of the parents and children at all grade levels agree that the youngster wants some help from his parent in career planning, as Table 62 shows, but a substantial proportion of the children say they want help whose parents do not agree. This appears to be more often the case of boys than of girls.

TABLE 59 +

Parent-Child Perception of Who is the Strongest Influence in Child's Career Choice or Planning[a]
6th Grade Boys and Girls

(Page 1 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks			
	Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%
Father	4	18	2	7	9	40	2	7	1	4	3	11
Mother	2	9	6	22	-	-	6	22	4	18	2	7
Sibling	-	-	1	4	-	-	2	7	-	-	-	-
Other relative	-	-	-	-	-	-	2	7	-	-	-	-
TV hero	-	-	-	-	-	-	-	-	-	-	-	-
Peers	2	9	-	-	1	4	1	4	1	4	1	4
Teacher	-	-	-	-	-	-	2	7	2	9	1	4
Adult friend	-	-	1	4	1	4	-	-	1	4	-	-
One read about	-	-	-	-	1	4	-	-	1	4	1	4

[a] A "no response" by both parent and child was not counted as agreement (both check). Percents for each class and sex are calculated on the basis of the number of boys or girls in that class.

+Questionnaire Item #7
*Frequency of Response in Each Category

TABLE 59[†]

Strongest Influence (Continued): 8th Grade Boys and Girls

(Page 2 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks			
	Boys		Girls		Boys		Girls		Boys		Girls	
	F[*]	%	F	%	F	%	F	%	F	%	F	%
Father	2	7	4	13	11	37	2	6	5	17	3	10
Mother	1	3	3	10	3	10	4	13	6	20	4	13
Sibling	-	-	1	3	3	10	1	3	-	-	1	3
Other relative	-	-	-	-	3	10	2	6	2	7	-	-
TV hero	-	-	-	-	-	-	1	3	1	3	-	-
Peers	-	-	-	-	-	-	1	3	-	-	-	-
Teacher	-	-	2	6	1	3	2	6	2	7	3	10
Adult friend	-	-	-	-	-	-	1	3	-	-	2	6
One read about	-	-	2	6	3	10	2	6	3	10	1	3

[†] Questionnaire Item #7

[*] Frequency of Response in Each Category

TABLE 59[+]

Strongest Influence (Continued): 10th Grade Boys and Girls

(Page 3 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks			
	Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%
Father	3	10	3	10	5	17	2	7	3	10	4	14
Mother	-	-	4	14	3	10	3	10	3	10	4	14
Sibling	-	-	-	-	1	3	1	3	1	3	1	3
Other relative	1	3	-	-	2	7	1	3	1	3	2	5
TV hero	-	-	-	-	-	-	-	-	-	-	-	-
Peers	1	3	-	-	1	3	1	3	3	10	3	10
Teacher	-	-	1	3	1	3	4	14	4	14	3	10
Adult friend	-	-	-	-	3	10	3	10	1	3	1	3
One read about	1	3	-	-	6	21	1	3	1	3	-	-

[+] Questionnaire Item #7

*Frequency of Response in Each Category

TABLE 59[+]

Strongest Influence (Continued): 12th Grade Boys and Girls

(Page 4 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks			
	Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%
Father	7	24	2	10	7	24	-	-	2	7	1	5
Mother	1	3	2	10	1	3	3	16	3	10	1	5
Sibling	-	-	-	-	-	-	1	5	-	-	2	10
Other relative	-	-	-	-	-	-	-	-	1	3	1	5
TV hero	-	-	-	-	-	-	-	-	-	-	-	-
Peers	-	-	-	-	2	7	2	10	1	3	2	10
Teacher	3	10	1	5	6	21	4	21	2	7	5	26
Adult friend	1	3	1	5	-	-	-	-	2	7	-	-
One read about	-	-	-	-	-	-	2	10	1	3	-	-

[+] Questionnaire Item #7

*Frequency of Response in Each Category

TABLE 60+

Parent-Child Perception of Events Influencing Child's Career Choice or Planning: 6th Grade Boys and Girls[a]

(Page 1 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks				Neither Checks			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Experience	1	4	1	4	4	16	2	7	5	20	9	32	15	60	16	57
Assoc. w/ expert	-	-	2	7	6	24	3	11	7	28	5	18	12	48	18	64
Illness	-	-	-	-	1	4	3	11	-	-	-	-	24	96	25	89
Lessons	2	8	1	4	2	8	6	21	2	8	2	7	19	76	19	68
What parents want[b]	-	-	1	4	4	16	5	18	2	8	4	14	19	76	18	64
Personal interest	14	56	13	46	1	4	7	25	5	20	5	18	5	20	3	11
Talent	6	24	1	4	6	24	7	25	7	28	6	21	6	24	14	50
Grades	3	12	2	7	7	28	10	35	6	24	1	4	9	36	15	54
Teacher praise	1	4	1	4	3	12	6	21	9	36	6	21	12	48	15	54

[a] Percents for each class and sex are calculated on the basis of the number of boys or girls in that class.

[b] The exact wording of this alternative is, "Wanting to do what parents or other adults think is best."

+Questionnaire Item #8

*Frequency of Response in Each Category

TABLE 60[+]

Influencing Events (Continued):
8th Grade Boys and Girls

(Page 2 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks				Neither Checks			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Experience	-	-	2	6	2	7	5	16	7	23	7	23	21	70	17	55
Assoc. w/ expert	1	3	4	13	6	20	5	16	3	10	7	22	20	67	15	49
Illness	-	-	-	-	-	-	-	-	2	7	-	-	28	93	31	100
Lessons	-	-	1	3	4	13	6	19	4	13	12	39	22	74	12	39
What parents want	-	-	1	3	3	10	2	6	6	20	4	13	21	70	24	78
Personal interest	17	57	16	52	3	10	4	13	7	23	9	29	3	10	2	6
Talent	6	20	9	29	1	3	1	3	11	37	10	32	12	40	11	36
Grades	6	20	6	19	7	23	4	13	6	20	6	19	11	37	15	49
Teacher praise	5	17	2	6	3	10	2	6	9	30	14	46	13	43	13	42

[+]Questionnaire Item #8
*Frequency of Response in Each Category

TABLE 60⁺

Influencing Events (Continued): 10th Grade Boys and Girls

(Page 3 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks				Neither Checks			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Experience	2	7	2	7	4	14	4	14	2	7	5	17	21	72	18	62
Assoc. w/ expert	3	10	2	7	5	17	5	17	2	7	3	10	19	66	19	66
Illness	-	-	-	-	-	-	2	7	-	-	-	-	29	100	27	93
Lessons	4	14	2	7	1	3	6	21	2	7	6	21	22	76	15	51
What parents want	1	3	-	-	3	10	2	7	4	14	3	10	21	73	24	83
Personal interest	23	80	23	80	3	10	4	14	1	3	1	3	2	7	1	3
Talent	10	34	10	34	4	14	6	21	6	21	6	21	9	31	7	24
Grades	5	17	6	20	9	31	4	14	3	10	8	28	12	42	11	38
Teacher praise	3	10	5	18	1	3	3	10	8	28	10	34	17	59	11	38

⁺Questionnaire Item #8
*Frequency of Response in Each Category

TABLE 60+

Influencing Events (Continued): 12th Grade Boys and Girls

(Page 4 of 4 pages)

	Both Check				Child Checks Parent Doesn't				Child Doesn't Parent Checks				Neither Checks			
	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Experience	2	7	5	24	5	17	4	19	4	13	4	19	19	63	8	38
Assoc. w/ expert	5	17	1	5	5	17	6	29	3	10	4	19	17	56	10	47
Illness	-	-	1	5	1	3	-	-	1	3	1	5	28	94	19	90
Lessons	4	13	2	10	4	13	8	38	4	14	1	5	18	60	10	47
What parents want	2	7	-	-	-	-	1	5	3	10	2	10	25	83	18	85
Personal interest	24	80	17	81	4	14	3	14	1	3	-	-	1	3	1	5
Talent	15	50	14	66	6	20	3	14	3	10	2	10	6	20	2	10
Grades	11	37	5	24	4	13	7	33	5	17	4	19	10	33	5	24
Teacher praise	4	13	9	43	5	17	3	14	4	13	2	10	17	57	7	33

+Questionnaire Item #8

*Frequency of Response in Each Category

TABLE 61[+]

Parent-Child Perception of Parental Help Given in Career Planning[a]

			Grade 6				Grade 8				Grade 10				Grade 12			
	Child says	Parent says	Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
			F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1.	Help given		10	40	17	63	16	53	22	71	19	66	20	69	24	81	11	52
2.	Help given	Little or no help given	8	32	6	22	8	27	3	10	4	14	4	14	5	16	5	24
3.	Little or no help given	Help given	5	20	3	11	2	7	6	19	3	10	5	17	-	-	3	14
4.	Little or no help given		2	8	1	4	4	13	-	-	3	10	-	-	1	3	2	10
	Column total		25	100	27	100	30	100	31	100	29	100	29	100	30	100	21	100

[a] A 5-point scale was dichotomized, "great deal", "quite a bit", and "some" becoming the "help given" category, and "very little", and "none" becoming the "little or no help" category.

[+] Questionnaire item #11.
[*] Frequency of Response in Each Category

TABLE 62⁺

Parent-Child Perception of How Much Parental Help in Career Planning Child Wants[a]

			Grade 6				Grade 8				Grade 10				Grade 12			
			Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	Child says	Parent says	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1.	Help wanted		13	52	16	57	16	53	21	68	17	59	19	65	15	50	7	34
2.	Help wanted	Little or none wanted	9	36	5	18	11	37	6	19	8	28	6	21	12	40	6	28
3.	Little or none wanted	Help Wanted	2	8	6	21	1	3	4	13	1	3	2	7	2	7	4	19
4.	Little or none wanted		1	4	1	4	2	7	-	-	3	10	2	7	1	3	4	19
	Column total		25	100	28	100	30	100	31	100	29	100	29	100	30	100	21	100

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[a] A 5-point scale was dichotomized, "great deal", "quite a bit", and "some" becoming the "help wanted" category, and "very little" and "none" becoming the "little or no help" category.

⁺Questionnaire item #12
*Frequency of Response in Each Category

When asked how much parents should be involved in children's career plans, 64% or more of all groups agreed that parents should be involved. These data are shown in Table 63. There are a few children, however, who feel their parents should be involved, but whose parents do not agree. The converse is also true--some parents feel they should be involved, but their children do not agree.

The lack of agreement on these three items is of particular interest. One may speculate that there is a basic lack of effective communication when a child says he wants his parent to be a more active part in his career planning, but whose parent doesn't know this. This is also true in cases where the parent thinks the child wants help, but his child says he doesn't want help. Lack of agreement here may indicate very difficult conflict areas for both the parent and the child.

A lack of agreement, and perhaps conflict, may be indicated by responses to the question: To what extent has the parent tried to influence the child toward the kind of work the parent feels is best for the child? There is considerable agreement among both parents and children who say that there has been influence and parents and children who say that there has not been very much influence, as Table 64 shows. However, there are again a number of parents and children in the middle ground, either the child or the parent perceiving influence, while the other respondent does not. The implication here, as it was for the other item discussed above, is that the parent and child are not "getting through to one another." Whether there is in fact conflict as a consequence cannot, of course, be determined from these data.

Grade Level for Career Exploration and Decisions

It was reasoned that if there were much disagreement between parents and their children of the time when children should seriously begin to consider careers, and when a career decision should be made, conflict might exist between parent and child. For example, if a child felt he needn't make a career decision until college, while the parent believed he should make the choice early in high school, effective assistance by the parent could well be impaired and, in fact, the child might feel a great deal of pressure on him to make an earlier decision. On the other hand, the child might want to make a decision earlier than the parent thinks necessary, and the child then might want and need more assistance then he is getting in career planning.

TABLE 63[+]

Parent-Child Perception of How Involved Parents Should Be in Child's Career Decisions[a]

Child says	Parent says	Grade 6				Grade 8				Grade 10				Grade 12			
		Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
		F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1. Involved		17	74	18	64	22	79	24	81	20	69	21	75	19	66	9	43
2. Involved	Little or no involvement	3	13	3	11	3	11	1	3	4	14	5	18	4	14	4	19
3. Little or no involvement	Involved	1	4	6	21	2	7	4	13	4	14	2	7	5	17	6	28
4. Little or no involvement		2	9	1	4	1	3	1	3	1	3	-	-	1	3	2	10
Column total		23	100	28	100	28	100	30	100	29	100	28	100	29	100	21	100

[a] A 5-point scale was dichotomized, "great deal", "quite a bit", and "some" becoming the "involved" category, and "very little", and "none" becoming the "little or no involvement" category.

[+] Questionnaire item #24

[*] Frequency of Response in Each Category

TABLE 64[+]

Parent-Child Perception of Parental Influence Toward Job Parents Feel "Best" for Child[a]

			Grade 6				Grade 8				Grade 10				Grade 12			
			Boys		Girls		Boys		Girls		Boys		Girls		Boys		Girls	
	Child says	Parent says	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1.	Influence	Influence	6	27	9	37	10	36	10	33	13	48	12	43	11	38	6	28
2.	Influence	Little or no influence	9	39	6	25	6	21	6	20	4	15	6	21	5	17	5	24
3.	Little or no influence	Influence	4	17	4	17	4	14	9	30	3	11	7	25	6	21	6	28
4.	Little or no influence	Little or no influence	4	17	5	21	8	29	5	17	7	26	3	11	7	24	4	20
	Column total		23	100	24	100	28	100	30	100	27	100	28	100	29	100	21	100

[a] A 5-point scale was dichotomized, "great deal", "quite a bit", and "some" becoming the "influence" category and "very little", and "none" becoming the "little or no influence" category.

[+] Questionnaire item #22
[*] Frequency of Response in Each Category

The responses to the question, When should boys (girls) begin to explore career possibilities seriously? are shown in Tables 65 and 66, for boys and girls, respectively. The most apparent finding is that there is very little agreement between any given parent-child pair on when exploration should begin. Thus, although 40% of the 6th grade boys and 20% of the parents of the 6th grade boys think exploration should begin in early high school, only 8% of these responses represent agreement between the same parent and his child. Other than this clear-cut finding of little agreement, it is difficult to draw any generalizations from the data. For some grade levels, the children appear to feel earlier exploration is necessary than do the parents, while in other grades, the reverse is true. The data are included here largely to emphasize the small percentage of parents and children who agree on when boys and girls should seriously begin to explore careers.

A similar lack of agreement is found when responses are compared of parents and their children to the question, When should boys (girls) make a career choice? This may be seen by examination of Tables 67 and 68. Although there are parents and there are children whose responses fall in all categories, it is only infrequently that the response of the same parent and child fall in the same category. As noted above, it is not possible to tell the content of the disagreement between parent and child from these data--e.g., whether the parent or the child believe a decision should be made earlier. The general lack of agreement suggest, however, that areas for conflict do exist, and the parent's chances of being a positive influence in his child's career planning may be decreased accordingly.

Judged Appropriateness of Selected Occupations for Boys and Girls

Nineteen occupations were chosen which have been considered, at least in the past, to be traditionally "masculine," "feminine," or appropriate for either men or women. Respondents were asked to indicate whether they felt each job was appropriate for boys, for girls, or for either boys or girls. The children's responses, as reported earlier, indicated that in general there is little stereotyping of occupations, and that occupational doors are felt to be open to both sexes. Parents also were asked to respond to this item, and their responses compared with those of their children. A high degree of agreement was found for all jobs, and where disagreement did occur, parents were more likely than were children to believe that an occupation was appropriate

TABLE 65[+]

Parent-Child Opinion of When Boys Should Begin Seriously to Explore Careers[a]
6th Grade Boys and Girls
(Page 1 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys F[*]	Boys %	Parents F	Parents %	Agree F	Agree %	Girls F	Girls %	Parents F	Parents %	Agree F	Agree %	Children F	Children %	Parents F	Parents %	Agree F	Agree %
Before Jr. High School	-	-	1	4	-	-	1	4	1	4	-	-	1	2	2	4	-	-
During Jr. High School	9	36	6	24	3	12	10	35	9	32	5	18	19	36	15	28	8	15
Early High School	10	40	5	20	2	8	10	35	5	17	3	10	20	37	10	19	5	9
Late High School	3	12	9	36	-	-	5	18	9	32	4	14	8	15	18	34	4	8
Early College	3	12	4	16	1	4	1	4	2	7	-	-	4	8	6	11	1	2
Late College	-	-	-	-	-	-	1	4	1	4	-	-	1	2	1	2	-	-
No Response	-	-	-	-	-	-	-	-	1	4	-	-	-	-	1	2	-	-
	25	100	25	100			28	100	28	100			53	100	53	100		

[a] The frequency and percent of respondents at each grade level are shown, along with the frequency and percent who agree on the grade when exploration should begin. For example, 9 boys and 6 parents of boys feel boys should begin exploring careers during junior high school. Of these 9 boys and 6 parents, 3 parent-boy pairs are in agreement.

[+] Questionnaire Item #13

[*] Frequency of Response in Each Category

TABLE 65[+]

Begin Seriously To Explore Careers (Continued)
8th Grade Boys and Girls

(Page 2 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	1	3	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-
During Jr. High School	14	47	8	27	7	23	15	48	11	35	6	19	29	47	19	31	13	21
Early High School	11	37	11	37	4	13	13	42	8	26	4	13	24	39	19	31	8	13
Late High School	2	7	8	26	-	-	3	10	7	23	1	3	5	8	15	25	1	2
Early College	1	3	1	3	-	-	-	-	2	6	-	-	1	2	3	5	-	-
Late College	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Response	1	3	2	7	-	-	-	-	3	10	-	-	1	2	5	8	-	-
	30	100	30	100			31	100	31	100			61	100	61	100		

[+] Questionnaire Item #13

*Frequency of Response in Each Category

TABLE 65[+]

Begin Seriously To Explore Careers (Continued)
10th Grade Boys and Girls
(Page 3 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F[*]	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	-	-	-	-	-	-	-	-	2	7	-	-	-	-	2	3	-	-
During Jr. High School	12	42	8	28	5	17	11	38	9	31	4	14	23	40	17	29	9	16
Early High School	7	24	6	20	2	7	16	55	6	21	3	10	23	40	12	21	5	9
Late High School	3	10	8	28	2	7	-	-	9	31	-	-	3	5	17	29	2	3
Early College	6	21	2	7	-	-	-	-	-	-	-	-	6	10	2	3	-	-
Late College	1	3	1	3	-	-	-	-	-	-	-	-	1	2	1	2	-	-
No Response.	-	-	4	14	-	-	2	7	3	10	1	3	2	3	7	13	1	2
	29	100	29	100			29	100	29	100			58	100	58	100		

[+] Questionnaire Item #13

[*] Frequency of Response in Each Category

TABLE 65[+]

Begin Seriously To Explore Careers (Continued)
12th Grade Boys and Girls
(Page 4 of 4 pages)

Responses of:	Boys'						Girls'						Marginals					
	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	2	7	1	3	-	-	1	5	-	-	-	-	3	6	1	2	-	-
During Jr. High School	11	36	4	14	1	3	4	19	4	19	2	10	15	29	8	16	3	6
Early High School	9	30	7	23	1	3	5	24	7	33	2	10	14	27	14	27	3	6
Late High School	5	17	10	33	1	3	6	28	5	24	2	10	11	22	15	29	3	6
Early College	2	7	6	20	1	3	4	19	4	19	1	5	6	12	10	20	2	4
Late College	-	-	1	3	-	-	-	-	-	-	-	-	-	-	1	2	-	-
No Response	1	3	1	3	-	-	1	5	1	5	-	-	2	4	2	4	-	-
	30	100	30	100			21	100	21	100			51	100	51	100		

[+] Questionnaire Item #13

*Frequency of Response in Each Category

TABLE 66+

Parent-Child Opinion of When Girls Should Begin Seriously to Explore Careers[a]
6th Grade Boys and Girls
(Page 1 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	-	-	1	4	-	-	2	7	-	-	-	-	2	4	1	2	-	-
During Jr. High School	4	16	3	12	1	4	9	32	10	36	6	21	13	24	13	24	7	13
Early High School	12	48	4	16	1	4	7	25	6	21	-	-	19	37	10	19	1	2
Late High School	5	20	11	44	1	4	8	28	8	28	2	7	13	24	19	36	3	6
Early College	4	16	2	8	1	4	1	4	3	11	-	-	5	9	5	9	1	2
Late College	-	-	1	4	-	-	1	4	1	4	-	-	1	2	2	4	-	-
No Response	-	-	3	12	-	-	-	-	-	-	-	-	-	-	3	6	-	-
	25	100	25	100			28	100	28	100			53	100	53	100		

[a] The frequency and percent of respondents at each grade level are shown, along with the frequency and percent of the respondents who agree on the grade when exploration should begin. For example, 4 boys and 3 parents of boys feel girls should begin exploring careers during junior high school. Of these 4 boys and 3 parents, 1 parent-boy pair agree.

+Questionnaire Item #15

*Frequency of Response in Each Category

TABLE 66[+]

When Girls Should Begin Seriously to Explore Careers (Continued)
8th Grade Boys and Girls
(Page 2 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
During Jr. High School	10	34	3	10	1	3	14	46	10	32	8	26	24	39	13	21	9	15
Early High School	12	40	13	43	4	13	11	35	8	26	5	16	23	38	21	34	9	15
Late High School	4	13	10	34	-	-	5	16	8	26	1	3	9	15	18	30	1	2
Early College	1	3	1	3	-	-	1	3	3	10	-	-	2	3	4	7	-	-
Late College	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Response	3	10	3	10	-	-	-	-	2	6	-	-	3	5	5	8	-	-
	30	100	30	100			31	100	31	100			61	100	61	100		

[+] Questionnaire Item #15
*Frequency of Response in Each Category

TABLE 66+

When Girls Should Seriously Begin to Explore Careers (Continued)
10th Grade Boys and Girls
(Page 3 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	-	-	-	-	-	-	-	-	1	3	-	-	--	-	1	2	-	-
During Jr. High School	3	10	7	24	1	3	9	31	8	28	3	10	12	21	15	26	4	7
Early High School	13	46	6	21	1	3	14	48	8	28	5	17	27	46	14	25	6	10
Late High School	5	17	6	21	1	3	6	21	6	21	2	7	11	19	12	21	3	5
Early College	5	17	4	14	1	3	-	-	1	3	-	-	5	9	5	9	1	2
Late College	3	10	1	3	-	-	-	-	1	3	-	-	3	5	2	3	-	-
No Response	-	-	5	17	-	-	-	-	4	14	-	-	-	-	9	16	-	-
	29	100	29	100			29	100	29	100			58	100	58	100		

+Questionnaire Item #15

*Frequency of Response in Each Category

TABLE 66[+]

When Girls Should Seriously Begin to Explore Careers (Continued)
12th Grade Boys and Girls
(Page 4 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	1	3	1	3	-	-	-	-	-	-	-	-	1	2	1	2	-	-
During Jr. High School	6	19	3	10	2	7	4	19	4	19	2	10	10	20	7	14	4	8
Early High School	8	27	7	24	2	7	3	14	5	24	1	5	11	21	12	23	3	6
Late High School	8	27	13	44	4	13	8	39	6	28	2	10	16	32	19	37	6	12
Early College	5	17	4	13	2	7	6	28	4	19	1	5	11	21	8	16	3	6
Late College	-	-	1	3	-	-	-	-	-	-	-	-	-	-	1	2	-	-
No Response	2	7	1	3	-	-	-	-	2	10	-	-	2	4	3	6	-	-
	30	100	30	100			21	100	21	100			51	100	51	100		

[+] Questionnaire Item #15
*Frequency of Response in Each Category

TABLE 67[+]

Parent-Child Opinion of When Boys Should Make Career Choice[a]
6th Grade Boys and Girls
(Page 1 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-	-
During Jr. High School	2	8	1	4	-	-	-	-	-	-	-	-	2	4	1	2	-	-
Early High School	6	24	1	4	1	4	5	18	3	11	1	4	11	21	4	8	2	4
Late High School	8	32	5	20	2	8	14	50	3	11	2	7	22	41	8	15	4	8
Early College	4	16	9	36	1	4	4	14	7	25	1	4	8	15	16	30	2	4
Late College	4	16	7	28	2	8	4	14	12	42	2	7	8	15	19	36	4	8
No Response	1	4	2	8	-	-	1	4	3	11	-	-	2	4	5	9	-	-
	25	100	25	100			28	100	28	100			53	100	53	100		

[a] The frequency and percent of respondents at each grade level are shown, along with the frequency and percent who agree on the grade level when the choice should be made. For example, 8 boys and 5 parents of boys believe a decision should be made in late high school. Of these 8 boys and 5 parents, only 2 parent-boy pairs are in agreement.

[+] Questionnaire Item #14

[*] Frequency of Response in Each Category

TABLE 67+

When Boys Should Make Career Choice (Continued)
8th Grade Boys and Girls
(Page 2 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
During Jr. High School	1	3	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-
Early High School	5	17	1	3	1	3	6	19	3	10	1	3	11	18	4	7	2	3
Late High School	17	57	9	30	5	17	20	65	5	16	3	10	37	60	14	23	8	13
Early College	3	10	14	47	1	3	2	6	12	39	1	3	5	8	26	43	2	3
Late College	3	10	6	20	1	3	-	-	9	29	-	-	3	5	15	24	1	2
No Response	1	3	-	-	-	-	3	10	2	6	-	-	4	7	2	3	-	-
	30	100	30	100			31	100	31	100			61	100	61	100		

+Questionnaire Item #14
*Frequency of Response in Each Category

TABLE 67[+]

When Boys Should Make Career Choice (Continued)
10th Grade Boys and Girls
(Page 3 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	-	-	-	-	-	-	-	-	1	3	-	-	-	-	1	2	-	-
During Jr. High School	1	3	1	3	-	-	1	3	1	3	-	-	2	3	2	3	-	-
Early High School	5	17	4	14	3	10	5	17	4	14	2	7	10	18	8	14	5	9
Late High School	9	31	3	10	1	3	13	45	10	34	3	10	22	38	13	22	4	7
Early College	6	21	8	27	3	10	7	25	5	18	1	3	13	22	13	22	4	7
Late College	6	21	9	32	2	7	2	7	5	18	-	-	8	14	14	25	2	3
No Response	2	7	4	14	-	-	1	3	3	10	1	3	3	5	7	12	1	2
	29	100	29	100			29	100	29	100			58	100	58	100		

[+] Questionnaire Item #14

*Frequency of Response in Each Category

TABLE 67[+]

When Boys Should Make Career Choice (Continued)
12th Grade Boys and Girls
(Page 4 of 4 pages)

	Boys'						Girls"						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	1	3	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-
During Jr. High School	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Early High School	1	3	1	3	-	-	-	-	2	10	-	-	1	2	3	6	-	-
Late High School	7	23	8	27	2	7	4	19	3	14	1	5	11	22	11	22	3	6
Early College	12	40	9	30	4	13	5	24	6	24	1	5	17	33	15	29	5	10
Late College	9	30	10	33	5	17	10	47	8	38	5	24	19	37	18	35	10	20
No Response	-	-	2	7	-	-	2	10	2	10	-	-	2	4	4	8	-	-
	30		30	100			21	100	21	100			51	100	51	100		

[+] Questionnaire Item #14
*Frequency of Response in Each Category

TABLE 68+

Parent-Child Opinion of When Girls Should Make Career Choice
6th Grade Boys and Girls

(Page 1 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
During Jr. High School	-	-	1	4	-	-	-	-	-	-	-	-	-	-	1	2	-	-
Early High School	5	20	2	8	-	-	5	18	1	4	-	-	10	19	3	6	-	-
Late High School	6	24	4	16	2	8	12	42	6	21	5	18	18	34	10	19	7	13
Early College	9	36	9	36	5	20	5	18	9	32	2	7	14	26	18	33	7	13
Late College	4	16	6	24	2	8	5	18	11	39	3	11	9	17	17	32	5	9
No Response	1	4	3	12	-	-	1	4	1	4	-	-	2	4	4	8	-	-
	25	100	25	100			28	100	28	100			53	100	53	100		

[a] The frequency and percent of respondents at each grade level are shown, along with the frequency and percent who agree on the grade level when the choice should be made. For example, 6 boys and 4 parents of boys believe girls should make a decision in late high school. Of these 6 boys and 4 parents, only 2 parent-boy pairs are in agreement.

+Questionnaire Item #16

*Frequency of Response in Each Category

TABLE 68[+]

When Girls Should Make Career Choice (Continued)
8th Grade Boys and Girls
(Page 2 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-
During Jr. High School	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Early High School	2	7	1	3	-	-	6	19	2	6	1	3	8	13	3	5	1	3
Late High School	17	57	10	34	5	17	17	55	8	26	4	13	34	57	18	30	9	15
Early College	4	13	12	40	2	7	4	13	13	42	1	3	8	13	25	41	3	5
Late College	3	10	6	20	-	-	1	3	7	23	-	-	4	6	13	21	-	-
No Response	4	13	1	3	-	-	3	10	1	3	-	-	7	11	2	3	-	-
	30	100	30	100			31	100	31	100			61	100	61	100		

[+] Questionnaire Item #16
*Frequency of Response in Each Category

TABLE 68[+]

When Girls Should Make Career Choice (Continued)
10th Grade Boys and Girls
(Page 3 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
During Jr. High School	1	3	1	3	-	-	1	3	2	7	-	-	2	3	3	5	-	-
Early High School	2	7	3	10	1	3	4	14	2	7	1	3	6	10	5	9	2	3
Late High School	10	34	3	10	2	7	13	45	10	34	5	17	23	40	13	22	7	12
Early College	6	21	7	24	2	7	8	28	8	28	3	10	14	25	15	26	5	9
Late College	8	28	9	31	3	10	3	10	5	17	-	-	11	19	14	24	3	5
No Response	2	7	6	21	-	-	-	-	2	7	-	-	2	3	8	14	-	-
	29	100	29	100			29	100	29	100			58	100	58	100		

[+] Questionnaire Item #16
*Frequency of Response in Each Category

TABLE 68[+]

When Girls Should Make Career Choice (Continued)
12th Grade Boys and Girls
(Page 4 of 4 pages)

	Boys'						Girls'						Marginals					
Responses of:	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Before Jr. High School	1	3	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-
During Jr. High School	-	-	-	-	-	-	-	-	1	3	-	-	-	-	1	2	-	-
Early High School	-	-	1	3	-	-	-	-	2	10	-	-	-	-	3	6	-	-
Late High School	10	33	10	33	2	7	5	24	6	30	3	14	15	29	16	31	5	10
Early College	8	27	6	21	2	7	2	10	6	30	2	10	10	20	12	24	4	8
Late College	8	27	10	33	6	20	11	52	5	24	5	24	19	38	15	29	11	22
No Response	3	10	3	10	-	-	3	14	1	3	-	-	6	11	4	8	-	-
	30	100	30	100			21	100	21	100			51	100	51	100		

[+] Questionnaire Item #16

*Frequency of Response in Each Category

for either boys or girls. In general, conclusion may be drawn, then, that at least in the middle-classed professional community sampled in this study, there is little stereotyping of occupations, and most boys and girls will not find occupational areas closed on this basis

Events Important for "Success," or, If Not Attained, for "Failure"

A list of fifteen attainments was presented to parents and children, and they were asked to check each as to whether they felt it was "Most important," "Somewhat important," or "Least important" for the child's success. Respondents then were asked to choose the one item from this list which would represent "to you" (meaning to the respondent) the greatest failure, if the child did not achieve it.

The frequency and percent of respondents checking each item "Most important for success" are shown in summary form, summed across the four grade levels, in Table 69. Only the key words of each alternative are given in the table. There is considerable agreement between parents and their children that getting a college degree is most important for success, and 50% or more of the boys and girls and their parents also agree that "being able to pursue own interests and express self creatively" is most important for success. The degree of agreement becomes markedly less for the other items. Particularly noticeable differences between parents and children are apparent from inspecting the Row Totals, where responses of boys and girls are summed. Nearly twice as many children as parents feel that "getting along well with friends" is most important for success. More than twice as many children believe that "being a top student" is most important for success. And more children than parents believe it is most important for success to "have a responsible job," "lead an exciting and adventurous life," "make lots of money in order to have a fine home, cars, etc.," and "have a steady, good-paying job that will last." The only striking reversal of this trend for more children than parents to check items as most important for success is the one labelled in the table "Do what parents think." As the footnote explains, the complete wording of this alternative reads"Accomplish what you (your parents) feel your child (you) is (are) capable of doing." (The words in parentheses indicate the wording for the child questionnaire.) More than four times as many parents as children checked this as most important for success. It is likely that the wording of the alternative on the child questionnaire was interpreted by children (but not by parents) to imply that they should do what their parents wanted them to do--an unacceptable position for most children, probably.

TABLE 69+

Frequency of Parents and Children Checking Selected Activities as "Most Important for Success," Ignoring Grade Level[a]

													Row Totals					
	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Get along with others	35	31	17	15	7	6	34	31	20	18	6	6	69	30	37	16	13	6
College degree	84	74	66	58	45	40	72	66	42	38	32	29	156	70	108	48	77	34
Develop talents	95	83	103	90	87	76	86	79	99	91	79	72	181	81	202	90	166	74
Top student	38	33	15	13	6	5	25	23	9	8	3	3	63	28	24	10	9	4
Do what parents think[b]	19	17	88	77	14	12	17	16	75	69	11	10	36	16	163	73	25	11
Good athlete	15	13	-	-	-	-	4	4	-	-	-	-	11	5	8	4	-	-
Contribute to society	47	41	54	47	25	22	38	35	44	40	20	18	85	38	98	44	45	20
Make name for self	36	32	41	36	13	11	20	18	16	15	4	4	56	25	57	26	17	8
Help others	58	51	64	56	38	33	78	72	57	52	44	40	136	61	121	54	82	37
Responsible job	73	64	59	52	39	34	65	60	37	34	21	19	138	62	96	43	60	27
Pursue own interests	77	68	79	69	57	50	76	70	85	78	60	55	153	69	164	73	117	52
Adventurous life	28	24	4	4	3	3	23	21	4	4	2	2	51	23	8	4	5	2
Get married	43	38	35	31	15	13	32	29	36	33	14	13	75	34	71	32	29	13
Make money	29	25	4	4	1	1	15	14	-	-	-	-	44	20	4	2	1	4
Steady good paying job	79	69	38	33	28	24	65	60	24	22	18	16	144	64	62	28	46	21

[a] Percents are calculated on the basis of the total number of boys and girls and their parents who could have responded (i.e., 114 boys and their parents and 109 girls and their parents).

[b] The wording of this alternative was, "Accomplish what you (your parents) feel your child (you) is capable of doing.

+Questionnaire Item #28 *Frequency of Response in Each Category

Turning to the responses to "what would be the one item which would represent failure" if the child did not achieve it, it is obvious from Table 70 that there are almost no items on which parents and children agree, and on the few where there is some agreement, the percent of parent-child agreement is very small. Thus only 10% of all children and their parents agree that not to "be able to pursue own interests and express self creatively" would mean failure. A number of children feel that not getting a college degree would mean failure, but very few parents believe this would mean failure. Several children indicate that not helping others would mean failure, but few parents check this. Similarly, more children than parents feel that not having a steady job, and not getting married, would mean failure. The frequencies, clearly, are very small, but it is possible to state that there is little agreement between parents and their children on what would mean failure.

The data presented in these two tables suggests that children set stricter standards of success and failure than do parents; one would expect little overt pressure from parents on their children to achieve several of the items which children feel it very important to attain.

Meaning of Selected Concepts to Parents and Children

Seven issues, or concepts, related to career and educational plans of children were rated by both parents and children, using the semantic differential technique. These ratings were gathered for two purposes: a) to determine whether the scales against which each concept was rated were used in the same way by both parents and children, and b) to learn whether the concepts had the same meaning for both parents and children. It was reasoned that substantial differences between parents and children in these two areas would be an indicator of a need for greater communication between parents and their children if parents are to be effective influences in their children's career planning.

Use of the rating scales. The connotative meaning--i.e., how people "feel about" given issues of concepts--is measured, when the semantic differential technique is used, by having subjects rate concepts against a set of bipolar adjective scales. Each adjective is rated on a 7-point scale. These adjective scales then may be subjected to factor analytic procedures to determine what dimensions are used to judge the concepts. Work by Osgood, et. al., (1957) has generally found three factors emerge from such an analysis--an Evaluative factor, usually defined by such

TABLE 70+

Frequency of Children and Parents Checking Items Meaning "Failure" If Not Achieved, Ignoring Grade Level[a]

													Row Totals					
	Boys		Parents		Agree		Girls		Parents		Agree		Children		Parents		Agree	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Get along with others	2	2	2	2	-	-	6	6	-	-	-	-	8	3	2	1	-	-
College degree	24	21	4	4	2	2	13	12	1	1	-	-	37	16	5	2	2	1
Develop talent	3	3	17	15	-	-	7	6	13	12	-	-	10	4	30	13	-	-
Top student	-	-	-	-	-	-	1	1	-	-	-	-	1	.4	-	-	-	-
Do what parents think[b]	-	-	16	14	-	-	1	1	14	13	-	-	1	.4	30	13	-	-
Good athlete	1	1	-	-	-	-	-	-	-	-	-	-	1	.4	-	-	-	-
Contribute to society	1	1	8	7	-	-	4	4	5	5	-	-	5	2	13	6	-	-
Make name for self	4	4	-	-	-	-	4	4	2	2	-	-	8	4	2	1	-	-
Help others	7	6	4	4	-	-	18	16	2	2	-	-	25	11	6	3	-	-
Responsible job	2	2	7	6	-	-	3	3	4	4	-	-	5	2	11	5	-	-
Pursue Interests	26	23	35	31	12	10	24	22	52	48	11	10	50	22	87	39	23	10
Adventurous life	5	4	-	-	-	-	1	1	-	-	-	-	6	3	-	-	-	-
Get married	8	7	8	7	-	-	15	14	8	7	1	1	23	10	16	7	1	.4
Make money	4	4	-	-	-	-	1	1	-	-	-	-	5	2	-	-	-	-
Steady job	22	19	10	9	4	4	5	5	2	2	-	-	27	12	12	5	4	2

[a] Percents are calculated on the basis of the total number of boys and girls and their parents who could have responded (i.e., 114 boys and their parents and 109 girls and their parents).

[b] The wording of this alternative was, "Accomplish what you (your parents) feel your child (you) is capable of doing.

+Questionnaire Item #29

*Frequency of Response in Each Category

adjectives as good-bad, valuable-worthless, interesting-uninteresting, etc.; an Activity factor (active-passive), and a Potency factor (strong-weak). In some studies, however, the Activity and Potency factors have merged into one factor which may be named Dynamism. Connotative meaning, or multi-dimensional meaning, of concepts is indexed by the factor scores for those factors emerging from the ratings of any given set of concepts.

Another purpose to which factor analysis of semantic differential ratings has been put is to determine whether the same factors, or dimensions of connotative meaning, emerge for all groups rating the same set of concepts. For example, would the Evaluative, Activity, and Potency factors emerge for a group of teachers and a group of parents rating such concepts as PROGRAMED INSTRUCTION, TEACHING MACHINES, or NON-GRADED CLASSROOMS? Or, if similar factors emerge, does each account for the same amount of the variance for the different groups of raters? A number of studies have used this technique of comparing between factor structures of different groups who have rated the same comcepts (cf., Tannenbaum, Jacobson, & Norris, 1964).

In the present study, parents and children rated seven concepts against 11 bipolar adjective scales. The concepts were HIGH SCHOOL, JUNIOR COLLEGE, FOUR YEAR COLLEGE, TECHNICAL WORK, PROFESSIONAL WORK, WORK, AND LEISURE. For two of the concepts, it was felt that some defining terms were necessary, at least for children. Thus for PROFESSIONAL WORK an example was given underneath the concept--(for example, doctor, lawyer, scientist). For TECHNICAL WORK, the examples given were draftsman, electronic specialist, and lab assistant. Each concept was rated, using a 7-point scale, against 11 bipolar adjectives: interesting-boring, strong-weak, pleasant-unpleasant, fast-slow, certain-uncertain, good-bad, forceful-unforceful, active-passive, valuable-worthless, hard-soft, and safe-dangerous.

The ratings of parents and children were then subjected to separate factor analyses, and the results of these analyses compared to determine whether parents and their children do use the same dimensions in evaluating the same set of concepts.[7] A highly similar factor structure was found upon inspection of the rotated factor matrices of parents and children's ratings. Four factors extracted accounted for from 46% to 53% of the total variance for parents, and from 38% to 52% of the total variance for children. Two of the four factors accounted for the largest percent of the total variance, the usual Evaluative factor, and, rather than the Activity and Potency factors, a combined Dynamism factor. Two other factors were extracted, each of which accounted for from 2% to 11% of the total variance. Because of the variability of the adjectives loading on these two factors, and the range of the total variance accounted for by different groups of subjects, these two factors were not examined further and will not be presented here.

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[7] Factor analysis was by the principal axis method, and each factor matrix was subjected to varimax rotation.

The adjectives loading on the Evaluative and Dynamism factors are shown in Tables 71 and 72. It is apparent that parents and children--regardless of the age or sex of the children--use the scales in much the same way in rating the set of seven concept. The usual adjectives load on the Evaluative factor--good-bad, pleasant-unpleasant, interesting-uninteresting, and valuable-worthless. Two of the adjectives have low loadings, especially for parents--certain-uncertain and strong-weak. These two adjectives, and also interesting-uninteresting, split and load on the Dynamism factor as well. For parents, one adjective loads highly on the Dynamism factor which does not do so for most of the children. This is the hard-soft pair. Four of the adjectives do load highly on the Dynamism factor for parents and children--strong-weak, active-passive, fast-slow, and forceful-unforceful.

Examining the percent of the total variance accounted for by parents and children at each grade level and for the different sexes, some differences do appear. For all parents, the Dynamism factor accounts for the greatest percent of the total variance, while the Evaluative factor accounts for the most variance for 6th grade boys and girls, for 8th grade boys and for 10th and 12th grade girls. The Evaluative factor has most often been found to account for the largest percent of the variance, and why this should not be the case here is not clear.

Another unexplained difference, both between parents and children and between children at different grade levels, may be seen by examining the sign of the factor loadings for the two factors. While for half of the child groups the loadings on both factors are positive, for four of the child groups the loadings for the Evaluative factor are positive, but on the Dynamism factor they are negative. Looking at the parent data, loadings are positive on the Evaluative factor for all groups, but they are negative on the Dynamism factor for all but the 12th grade parents. Whether the different direction of loadings is an artifact of the machine rotations or have some psychological significance has not been determined.

TABLE 71^{+}

Adjectives Loading Highest on Evaluative Factor for Children and Parents

Children

	Grade 6		Grade 8		Grade 10		Grade 12	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Pleasant	638	759	676	710	530	649	573	761
Good	624	756	778	719	703	594	757	548
Interesting	572	561	502	504	380	612	488	748
Valuable	514	630	703	602	605	468	688	404
Certain	411	311	286	198	315	258	304	241
Strong	404	264	352	211	302	390	296	458
% Total Variance	17.19	20.18	20.96	16.79	14.53	15.75	18.04	21.41

Parents

	Grade 6	Grade 8	Grade 10	Grade 12
Pleasant	646	600	416	585
Good	774	609	644	769
Interesting	487	562	368	327
Valuable	755	486	682	762
Certain	062	100	102	085
Strong	165	229	203	217
% Total Variance	18.35	13.24	13.52	17.38

TABLE 72⁺

Adjectives Loading Highest on Dynamism Factor for Children and Parents

Children

	Grade 6		Grade 8		Grade 10		Grade 12	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Strong	476	-610	-643	650	-669	-404	558	500
Active	535	-589	-641	647	-584	-500	662	583
Fast	572	-548	-595	570	-690	-473	632	294
Forceful	320	-344	-574	341	-407	-432	613	660
Interesting	363	-494	-525	557	-696	-446	558	264
Certain	340	-569	-511	355	-383	-400	390	210
Hard	072	-093	-248	-023	-161	-220	189	415
% Total Variance	11.83	17.49	20.86	17.10	23.62	12.60	22.47	14.86

Parents

	Grade 6	Grade 8	Grade 10	Grade 12
Strong	-654	-665	-565	469
Active	-655	-524	-637	618
Fast	-648	-731	-573	670
Forceful	-730	-609	-743	732
Interesting	-561	-417	-286	255
Certain	-462	-440	-539	605
Hard	-415	-242	-525	462
% Total Variance	23.50	19.13	22.46	21.09

There are, then, some major similarities between parents and children in the factors structure--the same factors emerge, and the same adjectives, for the most part, load highly on these factors. On the other hand, two differences appear which suggest, unless they are attributable to machine statistical procedures used, that the factor structures of parents and their children are not entirely alike. Further research is necessary to determine whether such differences indicate less than maximally effective communication between parents and children.

Connotative meaning of concepts for parents and children. The next step after examining the results of the factor analysis of parent-child semantic differential ratings was to compare the connotative meaning of the seven concepts for parents and children. Since two factors accounted for the greatest percent of the total variance, scores on only these two factors were used here as an index of connotative meaning. Factor scores were computed by summing the ratings of those adjectives which loaded highly and consistently for all groups. For the Evaluative factor, the three adjective pairs selected were good-bad, valuable-worthless, and pleasant-unpleasant. Three adjectives also loaded with consistency on the Dynamism factor--strong-weak, fast-slow, and active-passive. For each respondent, the rating on each of the adjectives comprising a factor was summed to form one score for each factor. Factor scores then were cast into tables comparing between parents and children, boys and girls, and grade levels, and analyses of variance were performed separately for each of the seven concepts. Two analyses were required for each concept--one in which the Evaluative factor scores were the dependent variable, and one in which the Dynamism factor scores were the dependent variable. As discussed in the Method and Procedure section, Evaluative factor scores are taken as an index of attitude toward the concept rated.

The scores included in the analyses were those of children and their parents. In a sense, then, the groups are matched, since for each child score, his parent score also is included in the analysis. Since comparisons between groups, rather than between any individual parent-child pair, was our interest, however, difference scores were not taken between parent and child scores. Instead, the scores of parents and children were treated independently, and comparisons are made between group means. The computer program required that there be an equal number of subjects in each cell. The smallest cell contained 21 subjects. Respondents were randomly deleted from other cells to reach this figure.

The major comparisons of interest are between parent-child scores for boys and girls and at different grade level for each concept. No statistical tests comparing mean scores between concepts were run. It may be of interest, however, to examine the relative mean scores for parents and children toward the seven concepts, and these are shown in Table 73. The Evaluative factor, as discussed above, is defined as a measure of attitude toward the judged concept. It is apparent that attitudes of parents are more favorable toward all concepts than are children's. This is a statistically significant difference in all cases, as shown by the anova run for each concept, which will be discussed further below. It also is clear that both parents and children are most favorable toward FOUR YEAR COLLEGE, and least favorable toward TECHNICAL WORK.

Looking at the Dynamism factor scores, there are again significant differences between mean scores of parents and children for most concepts. The exceptions are LEISURE and TECHNICAL WORK. Except for these two concepts, parents judge concepts to be more dynamic than do children. As in the case of the Evaluative factor scores, FOUR YEAR COLLEGE is judged most positively (in this case, most dynamic), while TECHNICAL WORK is least positive, or least dynamic.

The finding of the progression in both attitude and dynamism scores from FOUR YEAR COLLEGE to TECHNICAL COLLEGE supports expectations that individuals, at least in the population sampled for this investigation, would value a college education very highly, and would be less favorable toward technical work. As discussed in the introduction, school personnel have found that parents too often push their children into college and professional work even though technical work might be more suitable for them. The attitudes found here toward these concepts are in agreement with this type of behavior, and suggest that before parents and children can be persuaded that children should go into technical work of some kind, more positive attitudes toward technicians need to be achieved.

We may turn now to the results of the analyses of variance for each concept. It had been anticipated that there would be differences in judgments by parents and children, and these were generally found, as discussed above. On the basis of much research in which differences between boys and girls in aspirations, interests, and attitudes were found, it was also expected that differences in Evaluative and Dynamism factor

TABLE 73[+] Summary of Evaluative and Dynamism Factor Mean Scores for Seven Concepts Rated by Children and Parents[+]

Evaluative Factor Mean Scores[a]

	Four-Year College	Professional Work	Leisure	Work	High School	Junior College	Technical Work
Children	6.30	6.34	6.48	7.00	7.26	8.32	8.43
Parents	4.77	5.22	4.95	5.65	5.02	6.23	6.96

Dynamism Factor Mean Scores[b]

	Four-Year College	Professional Work	Leisure	Work	High School	Junior College	Technical Work
Children	6.86	7.26	9.28	7.78	8.37	8.90	9.57
Parents	5.70	5.97	8.82	6.65	7.10	7.91	9.02

[+] n = 21; range is from 3-21, 3 = most favorable, 9 = neutral.

[a] Differences between child and parent Evaluative Mean scores are significant for all concepts.

[b] All parent-child differences are significant except for Leisure and Technical Work.

scores would appear between boys and girls. An investigation of attitude and Dynamism acores between grade levels also was made.

The mean scores on the Evaluative and Dynamism factors in rating the concept HIGH SCHOOL are shown in Tables 74 and 75. The results of the analysis of variance show no significant differences except between boy-girl means. Means at the four grade levels do not differ significantly for this concept, the mean scores showing that HIGH SCHOOL is somewhat positive and somewhat dynamic for all children, and significantly more positive and more dynamic for all parents.

Judgments of the concept JUNIOR COLLEGE also differ significantly for parents and children, and a significant between grade difference also was found, as Tables 76 and 77 show. A linear trend appears, attitudes toward junior college becoming steadily less positive and less dynamic as higher grade levels are attained. This trend shows up for both children and parents. For 12th grade children, both Evaluative and Dynamism means are neutral. This decrease in positive evaluation and perceived dynamism of the junior college by older children and their parents may reflect greater knowledge, valid or not, which may have been gained through discussion with older friends who have attended a junior college. Whatever the cause for the difference between the grades, these results indicate that the image of the junior college held by those who are at an age where they may choose some form of higher education, may not lead them to opt for the two year college.

Evaluative and Dynamism mean factor scores for FOUR YEAR COLLEGE are fairly positive as Tables 78 and 79 show, more so for parents than children, as already mentioned.[8]/ There is an indication of an age x grade interaction for Evaluative scores ($p < .10$), which may be accounted for by the trend for attitude

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[8] This table and some of the others show identical means in some cells, and 0.0 sum of square for one source of variance. Because of this unusual result, checks were made using the original questionnaire data. The same results were found during the checking. Although individual scores were not necessarily identical in all cells, the sums of scores were identical, resulting of course in the same mean, and occasionally no difference in variance.

TABLE 74[+] Comparison of Parent-Child Mean Scores on the Evaluative Factor: High School

	Children		Parents		Marginals
	Boys	Girls	Boys	Girls	
Grade 6	6.95	7.10	4.90	5.19	6.04
Grade 8	8.24	7.52	4.24	5.43	6.36
Grade 10	8.24	6.81	5.19	4.81	6.26
Grade 12	6.14	7.10	5.48	4.90	5.90
Marginals	7.39	7.13	4.95	5.08	

Children	Parents	Boys	Girls
7.26	5.02	6.17	6.11

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	423.003	423.003	44.574[a]
Sex	1	.360	.360	
Grade	3	10.771	3.590	
Age x Sex	1	3.241	3.241	
Age x Grade	3	30.676	10.225	1.007
Sex x Grade	3	19.747	6.582	
Age x Sex x Grade	3	33.866	11.289	1.190
Error	320	3036.763	9.490	
Total	335	3558.426		

[+] n = 21; range is from 3-21, 3 = most favorable, 9 = neutral.

[a] $p < .0001$

TABLE 75[+]

Comparison of Parent-Child Mean Scores on the Dynamism Factor: High School

	Children		Parents		
	Boys	Girls	Boys	Girls	Marginals
Grade 6	8.00	7.95	6.67	7.57	7.55
Grade 8	8.52	9.14	6.52	8.00	8.05
Grade 10	8.33	8.19	6.81	6.38	7.43
Grade 12	8.67	8.14	7.76	7.05	7.90
Marginals	8.38	8.36	6.94	7.25	

Children	Parents	Boys	Girls
8.37	7.10	7.66	7.80

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	136.298	136.298	15.532[a]
Sex	1	1.714	1.714	
Grade	3	21.464	7.155	
Age x Sex	1	2.333	2.333	
Age x Grade	3	10.321	3.440	
Sex x Grade	3	34.952	11.651	1.328
Age x Sex x Grade	3	6.905	2.302	
Error	320	2807.905	8.775	
Total	335	3021.893		

[+] n = 21; range is from 3-21, 3 = most favorable, 9 = neutral.
[a] $p < .0001$

TABLE 76[+]

Comparison of Parent-Child Mean Scores on the Evaluative Factor: Junior College

	Children		Parents		
	Boys	Girls	Boys	Girls	Marginals
Grade 6	6.86	7.48	5.43	5.62	6.34
Grade 8	8.38	8.19	5.10	6.24	6.98
Grade 10	9.10	8.52	6.57	6.19	7.60
Grade 12	8.33	9.71	7.71	6.95	8.18
Marginals	8.17	8.48	6.20	6.25	

Children	Parents	Boys	Girls
8.32	6.23	7.18	7.36

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	368.762	368.762	35.400[a]
Sex	1	2.678	2.678	
Grade	3	157.310	52.436	5.034[b]
Age x Sex	1	1.440	1.440	
Age x Grade	3	15.833	5.278	
Sex x Grade	3	12.298	4.099	
Age x Sex x Grade	3	33.155	11.052	1.061
Error	320	3333.333	10.417	
Total	335	3924.810		

[+] n = 21; range is from 3-21, 3 = most favorable, 9 = neutral.

[a] $p < .001$

[b] $p < .01$

TABLE 77[+] Comparison of Parent-Child Mean Scores on the Dynamism Factor: Junior College

	Children		Parents		
	Boys	Girls	Boys	Girls	Marginals
Grade 6	7.19	7.05	7.38	7.48	7.27
Grade 8	8.38	9.10	7.57	7.71	8.19
Grade 10	9.81	9.95	8.48	7.05	8.82
Grade 12	8.81	10.95	8.28	9.33	9.34
Marginals	8.55	9.26	7.93	7.89	

Children	Parents	Boys	Girls
8.90	7.91	8.24	8.58

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	83.003	83.003	7.301[a]
Sex	1	9.670	9.670	
Grade	3	200.176	66.725	5.869[b]
Age x Sex	1	11.812	11.812	1.039
Age x Grade	3	62.604	20.868	1.836
Sex x Grade	3	56.318	18.773	1.651
Age x Sex x Grade	3	9.461	3.154	
Error	320	3638.095	11.369	
Total	335	4071.140		

[+] n = 21; range is from 3-21, 3 = most favorable, 9 = neutral

[a] $p < .01$

[b] $p < .0001$

TABLE 78[+] Comparison of Parent-Child Mean Scores on the Evaluative Factor: Four-Year College

	Children		Parents		
	Boys	Girls	Boys	Girls	Marginals
Grade 6	7.10	6.24	4.67	4.38	5.60
Grade 8	6.28	6.48	4.38	4.38	5.38
Grade 10	6.71	6.71	5.10	4.33	5.71
Grade 12	6.10	4.81	5.90	5.00	5.45
Marginals	6.55	6.06	5.01	4.52	

Children	Parents	Boys	Girls
6.30	4.77	5.78	5.29

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	198.107	198.107	23.036[a]
Sex	1	20.012	20.012	2.327
Grade	3	5.571	1.857	
Age x Sex	1	0.0	0.0	
Age x Grade	3	66.321	22.107	2.570[b]
Sex x Grade	3	15.274	5.091	
Age x Sex x Grade	3	5.714	1.905	
Error	320	2750.571	8.600	
Total	335	3061.571		

[+] $n = 21$; range is from 3-21, 3 = most favorable, 9 = neutral

[a] $p < .001$

[b] $p < .01$

TABLE 79[+]

Comparison of Parent-Child Mean Scores on the Dynamism Factor: Four-Year College

	Children		Parents		
	Boys	Girls	Boys	Girls	Marginals
Grade 6	8.00	7.14	5.24	5.00	6.34
Grade 8	7.62	6.67	6.57	5.81	6.67
Grade 10	7.19	6.43	6.14	4.86	6.15
Grade 12	6.00	5.81	5.43	6.52	5.94
Marginals	7.20	6.51	5.84	5.55	

Children	Parents	Boys	Girls
6.86	5.70	6.52	6.03

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	113.170	113.170	13.689[a]
Sex	1	20.503	20.503	2.480
Grade	3	23.914	7.971	
Age x Sex	1	3.241	3.241	
Age x Grade	3	68.295	22.765	2.754[b]
Sex x Grade	3	27.533	9.178	1.110
Age x Sex x Grade	3	9.080	3.027	
Error	320	2645.524	8.267	
Total	335	2911.259		

[+] $n = 21$; range is from 3-21, 3 = most favorable, 9 = neutral.

[a] $p < .001$

[b] $p < .05$

toward FOUR YEAR COLLEGE to be somewhat more positive in the 12th grade than at younger ages. This is not the case for parents, whose attitudes remain about the same at all four grade levels. An age x grade interaction also is found for Dynamism scores. Older children appear to judge this concept to be more dynamic than do younger children, but for parents, dynamism mean scores remain much the same at all grade levels.

This apparent trend toward more positive feelings toward FOUR YEAR COLLEGE in higher grades is in contrast to the trend toward less positive feelings toward JUNIOR COLLEGE in the higher grades. Inspection of the mean scores for younger children for JUNIOR COLLEGE and FOUR YEAR COLLEGE indicates that the 6th graders are rather positive toward both these concepts, and that it is only in the higher grades that feelings about junior college and four year college become different. If it is the desire of a school system to channel students into the junior college as well as the four year college, these data suggest that their efforts may have more effect if they are directed at 6th grade children, when feelings are still similarly positive toward both, than at older grades where feelings of children toward junior college and four year college become differentiated.

Attitudes toward TECHNICAL WORK are more positive for parents than for children, as Table 80 shows. There is slso an indication that boys are more positive toward this concept than are girls ($p < .10$). A trend for attitudes to become less favorable in higher grades also appears ($p < .10$), and this trend is more apparent among children than parents. On Dynamism scores, shown in Table 81, there is no difference between parents and children, but the grade difference again shows up. The trend for judgments of less dynamism in the higher grades again appears, for both parents and children. A sex x grade interaction also was found, boys and parents of boys in the 6th and 10th grades judging TECHNICAL WORK to be more dynamic than do girls and parents of girls, while the reverse is the case for the 8th and 12th grades. Why this should be co cannot be determined from these data.

Tables 82 and 83 show that Evaluative and Dynamism mean factor scores on PROFESSIONAL WORK are rather positive for both parents and children, although parents judge this concept to be more positive and more dynamic than do children. There is an indication that girls are more positive than are boys ($p. < .10$), but this may be accounted for more by a difference between parents of boys and parents of girls, than

TABLE 80[+]

Comparison of Parent-Child Mean Scores on the Evaluative Factor: Technical Work

	Children		Parents		
	Boys	Girls	Boys	Girls	Marginals
Grade 6	6.71	8.05	6.67	7.10	7.13
Grade 8	7.38	9.52	6.10	6.81	7.45
Grade 10	8.86	8.67	6.95	6.71	7.80
Grade 12	8.43	9.81	7.81	7.52	8.39
Marginals	7.84	9.01	6.88	7.04	

Children	Parents	Boys	Girls
8.43	6.96	7.36	8.02

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	181.574	181.574	15.403[a]
Sex	1	36.670	36.670	3.111[b]
Grade	3	73.461	24.487	2.077[b]
Age x Sex	1	21.503	21.503	1.824
Age x Grade	3	30.080	10.027	
Sex x Grade	3	29.747	9.916	
Age x Sex x Grade	3	8.104	2.701	
Error	320	3772.286	11.788	
Total	335	4153.426		

[+] $n = 21$; range is from 3-21, 3 = most favorable, 9 = neutral.

[a] $p < .001$

[b] $p < .10$

TABLE 81[†]

Comparison of Parent-Child Mean Scores on the Dynamism Factor: Technical Work

	Children		Parents		
	Boys	Girls	Boys	Girls	Marginals
Grade 6	8.28	8.43	9.05	8.48	8.56
Grade 8	8.86	9.76	9.10	8.81	9.13
Grade 10	10.38	9.48	9.48	7.33	9.17
Grade 12	10.14	11.24	8.95	10.95	10.32
Marginals	9.42	9.73	9.14	8.89	

Children	Parents	Boys	Girls
9.57	9.02	9.28	9.31

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	25.741	25.741	1.598
Sex	1	.074	.074	
Grade	3	137.580	45.860	2.846[a]
Age x Sex	1	6.574	6.574	
Age x Grade	3	40.580	13.527	
Sex x Grade	3	101.961	33.987	2.111[b]
Age x Sex x Grade	3	15.890	5.297	
Error	320	5155.428	16.111	
Total	335	5483.830		

[†] n = 21; range is from 3-21, 3 = most favorable, 9 = neutral.
[a] $p < .05$
[b] $.10 < p < .05$

TABLE 82[+] Comparison of Parent-Child Mean Scores on the Evaluative Factor: Professional Work

	Children		Parents		
	Boys	Girls	Boys	Girls	Marginals
Grade 6	6.81	5.48	5.05	5.28	5.65
Grade 8	5.67	6.62	5.10	4.90	5.57
Grade 10	7.48	6.00	5.62	4.76	5.96
Grade 12	6.48	6.24	6.24	4.81	5.94
Marginals	6.61	6.08	5.50	4.94	

Children	Parents	Boys	Girls
6.34	5.22	6.05	5.51

Sources of Variance	df	Sums of Squares	Means of Squares	F
Parent-Child (Age)	1	106.312	106.312	12.059[a]
Sex	1	24.646	24.646	2.796[b]
Grade	3	9.985	3.328	
Age x Sex	1	.027	.027	
Age x Grade	3	6.009	2.003	
Sex x Grade	3	27.866	9.289	1.054
Age x Sex x Grade	3	29.247	9.749	1.106
Error	320	2821.048	8.316	
Total	335	3025.140		

[+] n = 21; range is from 3-21, 3 = most favorable, 9 = neutral.

[a] $p < .001$

[b] $p < .01$

TABLE 83[+] Comparison of Parent-Child Mean Scores on the Dynamism Factor: Professional Work

	Children		Parents		
	Boys	Girls	Boys	Girls	Marginals
Grade 6	7.38	7.95	5.71	5.81	6.71
Grade 8	5.95	7.00	6.67	5.52	6.28
Grade 10	8.48	7.24	5.86	5.52	6.77
Grade 12	7.90	6.19	6.86	5.81	6.69
Marginals	7.43	7.10	6.28	5.66	

Children	Parents	Boys	Girls
7.26	5.97	6.85	6.38

Sources of Variance	df	Sums of Squares	Means of Squares	F
Parent-Child (Age)	1	140.146	140.146	15.506[a]
Sex	1	18.574	18.574	2.055
Grade	3	12.533	4.178	
Age x Sex	1	1.574	1.574	
Age x Grade	3	48.390	16.130	1.785
Sex x Grade	3	36.818	12.273	1.358
Age x Sex x Grade	3	31.438	10.479	1.159
Error	320	2892.000	9.038	
Total	335	3181.473		

[+] n = 21; range is from 3-21, 3 = most favorable, 9 = neutral.

[a] $p < .0001$

between the boys and girls themselves, as inspection of these means shows. That parents of girls would have more favorable attitudes toward professional work than do parents of boys is surprising, particularly given the generally professional occupations of all parents in our sample.

A generally favorable meaning is attributed to the concept Work, as Tables 84 and 85 show, although as usual parents are more favorable than are children. It is interesting to speculate what the meaning of work would be to a sample of children from a different socio-economic background than that of the subjects in this sample.

Attitudes toward LEISURE also are favorable, as Table 86 shows, but mean Dynamism scores, shown in Table 87, are less favorable, and in many cases are neutral. This is undoubtedly a function of the adjectives which make up this factor--active-passive, strong-weak, and fast-slow. For some individuals, leisure is seen as fast, very active, and very strong, while for others, leisure is seen as slow, not very active, and not very strong. The mean scores merely reflect this variety of feelings about leisure. The size of the error term, which is larger than that for any other concept except TECHNICAL WORK, is a further index of this variability.

In summary, the connotative meaning of all concepts is generally favorable, attitudes of parents are more positive than are those of children toward all concepts, and all but two of the concepts (LEISURE and TECHNICAL WORK) are judged more dynamic by parents than by children. Of particular interest is the indication of less favorable attitudes toward TECHNICAL WORK than toward PROFESSIONAL WORK, and toward JUNIOR COLLEGE than toward FOUR YEAR COLLEGE. Furthermore, it was indicated that while younger children are fairly positive toward all four of these concepts, older children have different attitudes toward them. As suggested before, if it is important for our society that children enter both technical and professional work and both junior college and four year college, it may be necessary to reinforce the generally favorable attitudes of younger children to these concepts so that entrance doors to both kinds of work and both kinds of high education remain open to them as they grow older.

The consistently more positive attitudes of parents than of children toward the concepts may indicate greater knowledge about the concepts than held by the children, although

TABLE 84[+] Comparison of Parent-Child Mean Scores on the Evaluative Factor: Work

	Children		Parents		
	Boys	Girls	Boys	Girls	Marginals
Grade 6	6.71	6.76	5.14	5.24	5.96
Grade 8	7.14	7.43	5.14	6.14	6.46
Grade 10	8.33	6.19	5.71	4.81	6.26
Grade 12	6.19	7.24	6.81	6.24	6.62
Marginals	7.09	6.90	5.70	5.61	

Children	Parents	Boys	Girls
7.00	5.65	6.40	6.26

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	152.012	152.012	12.470[a]
Sex	1	1.714	1.714	
Grade	3	20.155	6.718	
Age x Sex	1	.190	.190	
Age x Grade	3	39.726	13.242	1.086
Sex x Grade	3	57.024	19.008	1.559
Age x Sex x Grade	3	24.310	8.103	
Error	320	3900.857	12.190	
Total	335	4195.988		

[+] n = 21; range is from 3-21, 3 = most favorable, 9 = neutral.

[a] $p < .001$

TABLE 85$^+$

Comparison of Parent-Child Mean Scores on the Dynamism Factor: Work

	Children		Parents		
	Boys	Girls	Boys	Girls	Marginals
Grade 6	7.14	7.33	6.76	6.28	6.88
Grade 8	7.90	8.05	7.33	6.43	7.43
Grade 10	8.05	8.19	6.76	5.86	7.21
Grade 12	7.33	8.28	6.48	7.33	7.36
Marginals	7.60	7.96	6.83	6.48	

Children	Parents	Boys	Girls
7.78	6.65	7.22	7.22

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	107.440	107.440	10.223^a
Sex	1	0.0	0.0	
Grade	3	14.893	4.964	
Age x Sex	1	10.714	10.714	1.019
Age x Grade	3	14.417	4.806	
Sex x Grade	3	23.714	7.905	
Age x Sex x Grade	3	3.190	1.063	
Error	320	3363.333	10.510	
Total	335	3537.702		

$^+n = 21$; range is from 3-21, 3 = most favorable, 9 = neutral.

$^a p < .001$

TABLE 86[+]

Comparison of Parent-Child Mean Scores on the Evaluative Factor: Leisure

	Children		Parent		
	Boys	**Girls**	**Boys**	**Girls**	**Marginals**
Grade 6	7.00	7.86	4.57	5.43	6.21
Grade 8	6.81	6.62	4.19	4.28	5.48
Grade 10	6.43	5.33	4.95	5.05	5.44
Grade 12	5.43	6.38	6.33	4.81	5.74
Marginals	6.42	6.55	5.01	4.89	

Children	**Parents**	**Boys**	**Girls**
6.48	4.95	5.71	5.72

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	196.574	196.574	20.005[a]
Sex	1	.003	.003	
Grade	3	32.104	10.701	1.089
Age x Sex	1	1.312	1.312	
Age x Grade	3	74.676	24.892	2.533[b]
Sex x Grade	3	22.438	7.479	
Age x Sex x Grade	3	38.747	12.916	1.314
Error	320	3144.286	9.826	
Total	335	3510.140		

[+] n = 21; range is from 3-21, 3 = most favorable, 9 = neutral.

[a] $p < .001$

[b] $p < .10$

TABLE 87[+]

Comparison of Parent-Child Mean Scores on the Dynamism Factor; Leisure

	Children		Parents		
	Boys	**Girls**	**Boys**	**Girls**	**Marginals**
Grade 6	10.67	10.19	9.05	9.90	9.95
Grade 8	9.38	8.67	8.38	8.14	8.64
Grade 10	7.76	9.76	7.95	9.10	8.64
Grade 12	9.19	8.62	8.19	9.86	8.96
Marginals	9.25	9.31	8.39	9.25	

Children	Parents	Boys	Girls
9.28	8.82	8.82	9.28

Sources of Variance	df	Sums of Squares	Mean Squares	F
Parent-Child (Age)	1	17.646	17.646	1.114
Sex	1	17.646	17.646	1.114
Grade	3	96.866	32.289	2.039
Age x Sex	1	13.360	13.360	
Age x Grade	3	15.080	5.027	
Sex x Grade	3	46.033	15.344	
Age x Sex x Grade	3	27.318	9.106	
Error	320	5068.190	15.838	
Total	335	5302.140		

[+] n = 21; range is from 3-21, 3 = most favorable, 9 = neutral.

such an explanation doesn't hold up for the concept HIGH SCHOOL. The finding is, in fact, rather surprising if one accepts the premise that children learn their attitudes to a large extent from their parents, at least at younger ages. There is, at any rate, apparent agreement between parents and children attitudes in that FOUR YEAR COLLEGE is rated most positively, while TECHNICAL WORK is rated least positively by both.

Attitude as a function of degree of agreement between parents and children on selected questionnaire items. It was hypothesized that differential attitudes toward the seven concepts rated using the semantic differential technique would be related to the degree of agreement between parent and child on several of the other questionnaire items. The frequency of agreement on two different "Agreement Indices" was counted, respondents were divided into levels of agreement on the basis of the frequency count, and attitude scores were cast into an analysis of variance table for each concept.

There were no differences in attitude toward any concept as a function of the degree of agreement, so these analyses will not be shown here. The results of the frequency counts themselves are of interest, however, in that they show a range from no- or almost no-agreement to almost complete agreement. The first Agreement Index was calculated on the basis of agreement between each parent-child pair on each of 6 questionnaire items. These were: Has the child made a career choice? What is that choice? Who was the strongest influence in the child's vocational planning? What do parents want the child to do after high school? What work would be best for the child? and Why would this be the best job for the child? There were nine possible responses to the last question, so there were 15 parent-child comparisons in all--this index of agreement had a range from no agreement to 15 agreements.

The second Agreement index was the sum of agreements on four items: How much has the parent helped the child in his career thinking? How much help does the child want from his parents? How much has the parent tried to influence the child toward the job the parent thinks best for him? and How much should the parent be involved in the child's career planning? Responses to these four items were on a 5-point equal-appearing interval scale, where a score of 1 indicated the most help or influence, and a score of 5 indicated the least help or influence. A strict definition of "agreement" was used in computing the index--scores of 1, 2, or 3 were combined into a new category of "help" or "influence," while scores of 4 and 5 were combined into a category of "little or no help or influence." Thus if a child had a score of 1 and the parent a score of 3, this was counted as agreement. But if one had a score of 3 and the other a score of 4, this was counted as disagreement.

On the first Agreement Index, for which a range from 0-15 was possible, the highest score for any parent-child pair was 13 agreements, and the lowest score was 3 agreements. The large proportion of scores fell between 6 and 10 agreements. On the second index, with a range of 0-4 agreements, there was complete lack of agreement in a few cases, and some complete agreement with the majority of the scores being 2 or 3 agreements.

It is clear, then, that there is a wide degree of disagreement between parents and their children in the areas tapped by these two indices. This finding supports the lack of agreement already discussed when results of the analysis of each item were presented above. The implications are that parents and their children do not know each other very well, that perhaps they don't communicate very effectively or not very often. Or perhaps the lack of agreement reflects to a certain degree changes in children's plans which parents have little chance to have learned about--e.g., the 6th grade child who chooses a different occupation every day.

V. DISCUSSION

This volume has presented the responses of children in grades 6, 8, 10 and 12 and their parents to a questionnaire designed to learn about plans, attitudes and interests of children and their parents relevant to career planning. These data were put to two purposes: 1) the child responses were incorporated into curriculum materials which aimed at increasing children's self-understanding and thus leading them toward more appropriate career planning; and 2) the responses of parents and their children were compared in order to learn what part parents do play in their children's career thinking, and how much agreement there is between parents and children on a number of items related to vocational planning.

The curriculum materials which have been developed using the results of the analysis of child responses are given in a separate volume, as is a discussion of the rationale behind their development. The present volume of this final report therefore will not discuss the child data, but only the results of the parent-child comparisons.

Several questions were asked dealing with the perceived help given by the parent in the child's career plans, how much help the child would like to have, and how much parents should be involved in the child's career planning. A large proportion of parents and children agree that the parent has helped, that the child wants help, and that the parent should be involved in the child's career planning. However, there were some disagreements also. For example, many children said they wanted help from their parents, but their parents did not appear to know this. Conversely, some parents said their children wanted help, but their children did not indicate that this was the case. These cases of lack of agreement may be signs of present or possible conflict among parent and child and, at least, suggest that effective communication through which parent and child learn to "know one another" has not been occurring.

In contrast to the high degree of agreement between parents and children on questions dealing with parental help and involvement is the rather low degree of agreement on a number of items which require concrete information about the child's career and educational plans and about attributes of the child which suit him for a particular occupation. There was also little agreement about persons and events influencing the children in his career thinking.

There is, furthermore, a hint that parents and children may not know that they do not know each other very well. When parents and children were asked how much they agreed on what would be "the best job" for the child, a large percent said that they did agree. In other words, the majority of parents and children "agreed that they agreed."

However, parents and children also were asked to write down what they thought the best job would be for the child. When these responses were compared, agreement between what the parent put down and what the child indicated was not often found. There is, inshort, a discrepancy between the degree of agreement parents and children believe exists, and what does in fact exist, at least as tapped by these two items.

A number of items were included in the questionnaire to determine what the attitudes and feelings of parents and children were toward these education- and occupation-related concepts. Of particular interest were attitudes toward two of the concepts, TECHNICAL OCCUPATIONS AND JUNIOR COLLEGE. The growing need for skilled technicians, and the valuable contribution that junior colleges, at least in California, make toward filling that need, make apparent the fact that many children could appropriately choose to attend a junior college to learn a technical occupation. Many educators, however, feel that a four year college education for a professional career is most often held up by parents as the ideal, even for children who are not capable of achieving success in such a pursuit.

The attitudes assessed in the present study do indicate that both parents and children are more favorable to FOUR YEAR COLLEGE and PROFESSIONAL OCCUPATIONS than JUNIOR COLLEGE and TECHNICAL OCCUPATIONS. Parents, however, have more favorable attitudes toward all these concepts than do children. Whether these relatively favorable attitudes by the parents would be followed by encouragement to their children to go to a junior college and become a technician is, however, another question.

Examination of the attitude scores of children only for these two concepts showed that the less positive attitudes of children are held by the older children--particularly the 12th graders--but not by the 6th graders. It appears that while 6th graders are similarly favorable to professional and technical occupations, and to junior college and four year college, these favorable attitudes do not continue through high school. Assuming that if attitudes are favorable toward junior high school and technical occupations, children will be more likely to choose these educational and vocational plans, attempts to maintain the already favorable feelings of the 6th graders are suggested.

The highly favorable attitudes of this sample of parents and children toward professional work and four year college, and the less favorable attitudes toward technical work and junior college, may reflect the white collar, college-educated community sampled in this study. This same qualification holds, of course, for responses to all questionnaire items. Whether generalizations can be made to other communities with different demographic characteristics is not known. One may speculate that in a population of lower socio-economic status, parents and children would be in even less agreement, and that attitudes toward all the concepts would be quite different from those found here.

VI. CONCLUSIONS AND IMPLICATIONS

Much has been made throughout this report of the degree of agreement and disagreement between parents and children on a number of items related to the child's vocational planning. It should be made clear, however, that it is not so much agreement as such that is important, but rather what a lack of agreement implies. Thus, we must ask, What is the significance of the fact that parents and children do not agree that the parents should be involved in career planning? What does it mean that children believe not getting a college degree would be the worst thing that could happen to them, but that their parents are not aware of the importance of this achievement for their children?

Lack of agreement, then, is not the culprit against which we would argue, but the lack of knowledge and understanding of one another by parent and child which the lack of agreement may imply. The responses to many of the items in this questionnaire indicate such a lack of "knowing one another." One may then ask, What are the consequences of this lack of knowledge, in terms of the parents' effectiveness as positive influences in their children's vocational planning (and, to be sure, in other spheres of life, as well).

Recognizing the importance of the family in helping children toward appropriate career choices, one would expect that steps aimed at increasing the understanding of each other by parent and child would be essential if the parents are to be effective positive influences. Increasing the amount and/or the effectiveness of communication between parent and child may be the first step necessary toward greater knowledge of one another.

The desire expressed by a large percentage of the children in this sample for parental help, and the agreement by parents and children that parents should be involved in the child's career planning, suggests that actions by schools designed to help parents be more effective guidance counselors for their children would be welcomed by both parents and children alike. A vocational guidance program undertaken by a school to bring parents into a more active and effective role in career guidance may well take as a first step attempts to increase parent-child communication, specifically about vocational plans, but perhaps about more general life goals, as well.

Methods for bringing about such increased communication and mutual understanding would be a worthwhile focus of future research in this area. Assessment of the consequences of a more effective communication--in terms of the effectiveness of the parent as a factor in the child's career planning--should be an integral part of such research efforts.

The implications of the findings for attitudinal items have been discussed in the previous section. In summary, it appears that attempts to maintain the already favorable attitudes of 6th graders toward technical occupations and junior college should be made, thereby increasing the liklihood that these vocational and educational courses would be, at least, considered as a real possibility by the children.

VII. SUMMARY

As a first step toward developing methods for improving counseling and guidance of children toward more appropriate vocational choices, a questionnaire asking about plans, interests and attitudes in the area of career planning was designed and administered to children in grades 6, 8, 10 and 12. Reasoning that parents are a primary factor in their children's career planning, a similar questionnaire was sent to the parents of these children.

These data were used in two ways: 1) the child responses were incorporated into curriculum materials which aimed at increasing children's self-understanding with the intent of thus leading them toward more appropriate career planning and decision-making; and 2) the responses of parents and their children were compared in order to learn what part parents do play in their children's career thinking, and how much agreement there is between parents and children on a number of items related to vocational planning. The degree of agreement between parents and children was taken as an indication of how well the two generations "know each other," in terms of career plans and interests.

The curriculum materials developed with the child responses to the questionnaire are presented in another volume of this final report. The comparison of parent-child responses to selected questionnaire items, presented in this volume of the final report, showed that there is considerable agreement between parents and children, that parents have helped in the children's career plans, and that parents should be involved in vocational planning. On the other hand, there is much lack of agreement on a number of items which may be taken as an index of how well parent and child "know one another." These results were taken as an indication that parents should be encouraged to play an active role in children's vocational planning, but that attempts need to be made to increase the understanding between parents and children in areas related to vocational planning if parents are to be effective influences in their children's planning. The implications of attitudes of parents and children toward a number of education- and vocational-related concepts also were discussed.

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APPENDIX A: SAMPLE QUESTIONNAIRE

To avoid unnecessary duplication, only the parent form of the questionnaire is included here. The wording of the child form differed only in that the questions were directed to the child (e.g., Have you decided on the kind of work you want to do?) rather than to the parent (e.g., Has your youngster decided on the kind of work he or she wants to do?).

Six items which were included in the child questionnaire were not in the parent form. Two of these were:

30. Put the items on the right in order of how satisfying they are to you. Write a (1) by the one you find most satisfying, a (2) by the next most satisfying, and a (3) by the third most satisfying.

    Getting good grades ____

    Being in the center of school activities ____

    Being in a classroom where you really are excited about learning ____

31. Circle the number of the one above that you feel is most important to you.

The other four items were concepts to be rated using the semantic differential technique. The concepts which children rated but which parents did not were:

MY FUTURE

MY FUTURE WORK

MYSELF

THE KIND OF PERSON I'D LIKE TO BE.

(1)

The work done by adults living in the home may be an influence on the kinds of careers youngsters consider for themselves. Write in the spaces below the kinds of work with which your child has had first-hand experience.

Father's work ______________________

Mother's work ______________________

Work done by others in home (describe) ______________________

---

(2)

Does your youngster have any broad areas of interest he or she would like to explore for possible career choice in the future?

Yes . . . . ____1
No . . . . ____2
I don't know . . . . ____3

(3)

If so, what are these areas of interest?

____

---

(4)

Has your youngster decided on the kind of work he or she wants to do?

Yes, my child has decided . . . . ____1
My child seems to have decided
  but is not sure about it . . . ____2
No, my child has not decided . . ____3

---

(5)

If your child has some idea of a career choice, what is it?

____

---

(6)

Listed on the right are people who sometimes influence youngsters in their career interests.

Check those you feel may have influenced your youngster.

Father . . . . ____1
Mother . . . . ____2
Brother or sister . . . . ____3
Other relatives . . . . ____4
Movie or TV hero . . . . ____5
Friends near own age . . . . ____6
Teachers . . . . ____7
Adult friend or neighbor . . . . . ____8
Someone read about . . . . ____9

(7)

Circle the number of the one above that you think has been the strongest influence on your child.

---

(8)

Check all of the things listed on the right which you think may have influenced your youngster's career interest or choice.

Dramatic first-hand experience . ____1
Close association with an expert ____2
Illness or physical handicap . . ____3
Lessons or opportunities for special training . . . . ____4
Wanting to do what parents or other adults think is best . . ____5
Personal interest and enjoyment ____6
Talent or ability . . . . ____7
Good grades in certain subjects ____8
Praise from teachers or other adults . . . . ____9

---

(9)

If your youngster has not yet made a career decision, how interested do you think he or she is in exploring possibilities at this time?

Very . . . . ____1
Quite . . . . ____2
Somewhat . . . . ____3
Not very . . . . ____4
Not at all . . . . ____5

---

(10)

If your child has not yet made a career choice, check all of the reasons listed on the right which may explain why he or she has not yet decided.

Too young to decide yet . . . . . ____1
Needs to explore more fields before deciding . . . . ____2
Too little vocational guidance . ____3
Busy with social activities . . . ____4
Influence of friends who appear unconcerned about career choice ____5
Unsure of self and own abilities ____6
Concerned with problems (perhaps such things as family separation, loss of loved ones, lack of popularity, etc.) . . . . ____7
Lack of interest in school or trouble with academic work and grades . . . . ____8
Busy with sports . . . . ____9

---

(11)

Parents differ in the amount of help they give boys and girls in thinking about possible future careers. To what extent have you helped your youngster?

Great deal . . . . ______1
Quite a bit . . . . ______2
Some . . . . ______3
Very little . . . . ______4
Not at all . . . . ______5

---

(12)

How much help does your youngster seem to want from you in thinking about a future career?

Great deal . . . . ______1
Quite a bit . . . . ______2
Some . . . . ______3
Very little . . . . ______4
None . . . . ______5

---

(13)

Even though individuals differ, when do you feel boys, in general, should begin seriously exploring possible career choices?

Before junior high school. . . . ______1
During junior high school . . . ______2
As soon as they enter high school ______3
By the last year of high school. ______4
In the first two years of college ______5
In the last two years of college ______6

(14)

Circle the time when you feel boys should come to a definite decision.

---

(15)

In general, when do you feel girls should begin seriously exploring possible career choices?

Before junior high school. . . . ______1
During junior high school . . . ______2
As soon as they enter high school ______3
By the last year of high school . ______4
In the first two years of college ______5
In the last two years of college ______6

(16)

Circle the time when you feel girls should come to a definite decision.

(17)

What do you think your youngster will do after high school? Some possibilities are listed on the right.

Check the ones which apply to your child. (You may check more than one).

Get a steady job right after high school . . . . ______ 1
Enter business or industry as a trainee or apprentice . . . . ______ 2
Go to a technical training school (to become a secretary, beauty operator, hotel manager, data processor, etc.) . . . . ______ 3
Attend junior college for special training . . . . ______ 4
Attend junior college and then transfer to a four-year college ______ 5
Go directly to a four-year college ______ 6
Attend graduate school after college . . . . ______ 7
Marriage . . . . ______ 8
Enter military service (Army, Navy, Marines, etc.) . . . . . ______ 9

(18)

Circle the number of the one item which you would most like your child to do.

(19)

Listed below are several kinds of work. People differ in the extent to which they feel different jobs are "right" for boys and girls.

Check one of the three columns for each job to show whether you feel it is right only for boys, only for girls, or would be right for either one.

	Right for only Boys	Right for only Girls	Right for either Boys or Girls	
computer programmer or operator . . .	____	____	____	1
secretary	____	____	____	2
doctor.	____	____	____	3
social worker	____	____	____	4
accountant	____	____	____	5
business executive	____	____	____	6
police work	____	____	____	7
engineer	____	____	____	8
nurse	____	____	____	9
chemist	____	____	____	10
mathematician	____	____	____	11

	Right for only Boys	Right for only Girls	Right for either Boys or Girls	
architect	___	___	___	12
journalist	___	___	___	13
librarian	___	___	___	14
psychologist	___	___	___	15
draftsman	___	___	___	16
artist (musician, painter, writer, etc.)	___	___	___	17
interior decorator	___	___	___	18
teacher	___	___	___	19

(20

What kind of work do you feel would be best for your youngster?

____

(21

What is it about your youngster that you feel makes him or her suited to this kind of work? (You may check more than one.)

Is interested and finds enjoyment and personal satisfaction in it	______	1
Is intelligent	______	2
Is inquisitive or inventive . .	______	3
Is concerned for others and wants to help	______	4
Gets along well with others . .	______	5
Is careful, neat and orderly . .	______	6
Has talent, skills, or background for it	______	7
Can express self easily	______	8
Is a good leader or organizer .	______	9
Other (describe)	______	10

____

(22

To what extent have you tried to influence your youngster toward the kind of work you feel is best for him (her)?

Great deal	______	1
Quite a bit	______	2
Some	______	3
Very little	______	4
Not at all	______	5

(23

How much do you and your child agree on what would be the best career choice?

Great deal . . . . ____1
Quite a bit . . . . ____2
Some . . . . ____3
Very little . . . . ____4
Not at all . . . . ____5

(24

Check how much you feel parents should be involved in young people's career decisions.

Great deal . . . . ____1
Quite a bit . . . . ____2
Some . . . . ____3
Very little . . . . ____4
Not at all . . . . ____5

(25

Number all of the following guidance activities in the order in which you would like your own child to have these experiences at school. You are to do two things for each item. In the left-hand space, place (1) by the activity you would like most, (2) by your second choice, etc., up through (5), the one you would like least. Then check one of the three right-hand columns for each item to show when you would prefer each activity to take place.

(Number in order of choice here)		(Check one of these columns for each activity)		
		Part of regular academic work	Occasional homeroom or guidance activity	Occasional after-school activity
( )	Learn about different kinds of work from speakers, field trips, movies, reading job information pamphlets, and discussing career opportunities and training.	____	____	____
( )	Arrange for your youngster to have actual work experience with different kinds of jobs.	____	____	____
( )	Give your youngster interest, ability, and achievement tests for use in helping him to understand his own abilities and attitudes and set wise goals for the future.	____	____	____
( )	Have clubs or interest groups for the purpose of exploring different career fields.	____	____	____
( )	Small group discussions about how abilities and interests develop and may relate to career success, problems young people face in planning for their futures, what people enjoy about their work, etc.	____	____	____

(26

Early interests often are related to what people do later in life. Check all the activities you recall your child enjoying very much at different ages as he or she was growing up, or still enjoys.

It is easiest to first look at each item, then check across the age levels to show about how old your child was when he or she enjoyed it. Leave blank the spaces by things that did not interest your child. If your youngster is in the 6th grade, check only the first 2 columns; if in the 8th grade, use only 3 columns. If in the 10th or 12th grade, you may check all 4 columns.

		Grades in School			
	Preschool to 3rd	4th-6th	7th-9th	10th-12th	
Playing with cars, trucks, airplanes, go-carts, etc.	____	____	____	____	1
Playing hopscotch, jacks, jump-rope, etc.	____	____	____	____	2
Playing quietly indoors.	____	____	____	____	3
Building or constructing things (blocks, erector sets, model planes, cars, etc.)	____	____	____	____	4
Playing house or with dolls.	____	____	____	____	5
Designing or inventing things	____	____	____	____	6
Playing nurse or doctor	____	____	____	____	7
Playing school	____	____	____	____	8
Playing war, cowboys, Indians, etc.	____	____	____	____	9
Reading, movies, or TV programs about war, adventure, or exploration	____	____	____	____	10
Reading, movies, or TV programs about love, romance, or families	____	____	____	____	11
Discussing or listening to new and exciting ideas	____	____	____	____	12
Concern with clothes, appearance, and manners	____	____	____	____	13
Active outdoor sports requiring physical skill and energy	____	____	____	____	14
Writing plays, stories or poems	____	____	____	____	15
Collecting, observing, or enjoying nature (insects, rocks, animal life, stars, etc.)	____	____	____	____	16
Arranging parties or social affairs	____	____	____	____	17

	Preschool to 3rd	Grades in School			
		4th-6th	7th-9th	10th-12th	
Planning for future career achievement . .	____	____	____	____	18
Learning about people and human relationships	____	____	____	____	19
Tinkering or experimenting (with radios, electricity, chemistry, motors or other mechanical things, etc.)	____	____	____	____	20
Learning math or science	____	____	____	____	21
Sewing or cooking.	____	____	____	____	22
Playing musical instruments, singing, or listening to records	____	____	____	____	23
Drawing, painting, crafts, etc.	____	____	____	____	24
Acting, directing, or helping with plays .	____	____	____	____	25
Dreaming of a glamorous and exciting future	____	____	____	____	26

(27

Most people would agree that major purposes of education include development of talents, teaching basic skills and general background knowledge, and developing effective citizens. Beyond these, however, people seem to differ in what they think education should do for their youngsters.

Some of these other purposes of education are listed to the right. Number each one from 1 (most important to you) to 6 (least important to you) to show what you would like education to do for *your* child.

Develop problem solving and creative thinking abilities . ____
Develop social skills, provide social relationships, and develop appreciation of others . . . . ____
Develop ability to express personal ideas and feelings . ____
Develop enjoyment of learning . ____
Help youngsters make wise career choices and provide them training for future work. . . ____
Develop appreciation of the arts and beauty . . . . ____

(28

Parents want their youngsters to be successful, but they may differ in what success means to them. Check each item below in the space which best shows how important you feel it would be to your own child's success.

	Most Important For Success	Somewhat Important For Success	Least Important For Success	
DURING SCHOOL YEARS				
Get along well with friends or be popular	____	____	____	1
Get a college degree	____	____	____	2
Develop talents and abilities	____	____	____	3
Be a top student	____	____	____	4
Accomplish what you feel he or she is capable of doing	____	____	____	5
Be a good athlete	____	____	____	6
IN THE FUTURE				
Contribute to society	____	____	____	7
Gain recognition in a career	____	____	____	8
Be able to help others	____	____	____	9
Have a responsible job	____	____	____	10
Be able to pursue own interests and express self creatively	____	____	____	11
Lead an exciting adventurous life . . .	____	____	____	12
Get married and have a nice family . . .	____	____	____	13
Make lots of money in order to have a fine home, cars, etc.	____	____	____	14
Have a steady, good-paying job that will last	____	____	____	15

____________________________________ (29)

Circle the number of the one item above that would represent to you the greatest failure, if your child did not achieve it.

INSTRUCTIONS FOR FILLING OUT THE REST OF THE QUESTIONNAIRE

READ THIS PAGE CAREFULLY BEFORE GOING ON

The questions which follow will let you express how you feel about several different things. For example, how might you feel about EDUCATIONAL TELEVISION? If you had checked the pairs of adjectives as in the example below, you would feel that EDUCATIONAL TELEVISION is slightly good, somewhat valuable, and you're not sure about how forceful it is.

EDUCATIONAL TELEVISION

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
good			✓					bad
worthless						✓		valuable
forceful				✓				unforceful

A number of things for you to rate in this way are given on the next few pages. Please place your check on the line (✓), not over the dots.

Place one check for each pair of adjectives. Don't skip any.

Work quickly through each page. Do not spend a lot of time making up your mind. Put down your first reactions for each pair of adjectives--even though the adjective may seem somewhat unusual to you--and go right on to the next pair.

HIGH SCHOOL

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
certain								uncertain
bad								good
forceful								unforceful
active								passive
worthless								valuable
soft								hard
safe								dangerous

PROFESSIONAL WORK

(for example, doctor, lawyer, scientist)

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
certain								uncertain
bad								good
forceful								unforceful
active								passive
worthless								valuable
soft								hard
safe								dangerous

JUNIOR COLLEGE

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
certain								uncertain
bad								good
forceful								unforceful
active								passive
worthless								valuable
soft								hard
safe								dangerous

WORK

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
certain								uncertain
bad								good
forceful								unforceful
active								passive
worthless								valuable
soft								hard
safe								dangerous

TECHNICAL WORK

(for example, draftsman, electronic specialist, lab assistant)

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
certain								uncertain
bad								good
forceful								unforceful
active								passive
worthless								valuable
soft								hard
safe								dangerous

FOUR YEAR COLLEGE

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
certain								uncertain
bad								good
forceful								unforceful
active								passive
worthless								valuable
soft								hard
safe								dangerous

LEISURE

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
certain								uncertain
bad								good
forceful								unforceful
active								passive
worthless								valuable
soft								hard
safe								dangerous

Comments:

Please sign if you would like to receive a summary of the group findings.

Name_______________________________________

Address____________________________________

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APPENDIX B: CLASSIFICATION OF OCCUPATIONS

Interest in the possible influences of sex differences, sex stereotyping, social class, and parental models upon career choice prompted development of the particular occupational classification system used in the coding of questionnaires.

An effort was made to follow Altman's categories of general vocational capabilities (Altman, 1965), ranging from hardware to people (mechanical, electrical, spatial, chemical and biological, symbolic, people). These were based upon a continuum of male-female superiority in tests adminstered to 10,000 ninth grade through junior college students; the sets of tests for various occupations were derived from task analyses of 31 jobs.

The procedure used in establishing the classification system for parental occupations and children's vocational choices commenced with tabulation of all occupations given in any of the open-ended questionnaire items requesting response of an occupation. These then were grouped into broad areas which somewhat resembled the Altman continuum. Since one of the concerns of this study involves scientific vs. non-scientific interests, one broad area was Physical Sciences, 1.0 (focus on phenomena and things) and another was Biological Sciences, 2.0 (focus on people and living things). Although both could be classified as 'science,' a distinction was made based on the content with which the occupations deal.

The next broad category was that of Architecture, 3.0, in which there not only is concern for science but also for art; this area seems to be a bridge between the two kinds of interests. All of the building construction activities were subsumed under this heading. This was followed by Arts, 4.0 (concern with beauty and expression), Symbolic, 5.0 (concern with numbers and symbols), Business, 6.0 (concern with money and services), Law and Government, 7.0 (concern with theory and social problems), and People, 8.0 (concern with helping others directly. A Miscellaneous category, 9.0, was established for military, housewife, deceased, and student classifications.

Since these broad areas are not mutually exclusive, arbitrary decisions were made when occupations which seemed to overlap were assigned. For example, nursing, although listed under biological sciences, also might be classified under helping people. Since the content of nursing is medicine and is loaded with biological sciences, it was classed under category 2.0 instead of 8.0.

All occupations appearing in the questionnaire data next were grouped into three sub-categories under each broad area labelled Professional (.1), Technical (.2), and Skilled (.3). These will provide an approximation of social class. Assignments to these three categories were based upon judgments regarding educational background and training needed, responsibility involved, etc. Again, arbitrary decisions had to be made with which others might disagree. Sometimes insufficient job description made assignment as technical or skilled difficult. Individual variation in quality of work was unknown, as was depth of concern or involvement with tasks. On a few occasions unfamiliar job descriptions seemed to defy classification. Business was the most difficult to categorize because status within the business world or level of achievement may be a function of factors other than formal education or training.

In general, however, these categories made classification of occupations quite simple. It provided an index for scientific-non-scientific choices, occupational stereotyping within broad areas of interest, concern for varied content ranging from things to people, and a range of preparation and status within each broad field.

The classification system which follows was a joint effort and, althouth it is not above criticism, should provide the necessary flexibility and scope for checking on hunches and hypotheses which stem from a review on the literature on sex differences and some of the current concerns in vocational education.

Code for: OCCUPATIONS

00 No choice

10 Physical Sciences (focus on phenomena and things)

11 Professional (engineering)

- Physics
- Meteorology
- Geology
- Chemist (physical)
- Astronomy
- Space
- Radio
- Electronics
- Electrical
- Aeronautics
- Mechanical
- Inventor
- Engineer for telephone company

12 Technical

- Draftsman (mechanical)
- Experimental machinist
- Calculator service manager
- Philco designer
- Technical writer
- Research supervisor, telephone company
- Department manager, telephone company
- Flight engineer
- Pilot
- Staff associate at SLAC
- Scientific work
- United Airlines inspector

13 Skilled

- Machinist
- Mechanic (cars, airplanes)
- Electrician
- Telephone
- Plumbing
- Radio repair
- Electrical assembly
- Blueprint checker
- Physical science aide
- Fitter, American Bridge

20 Biological Sciences (focus on people and living things)

21 Professional

Medical research
Doctor
Nurse
Veterinarian
Dentist
Biologist
Herpotologist
Marine biology
Marine research
Oceanography
Archeology
Anthropology
Pharmacy
Dietician
Radiologist
Conservation
Forest ranger

22 Technical

Medical analyst
Orthodontist or dental assistant
Lab technician (biological)
X-ray technician
Blood bank work
Medical secretary

23 Skilled

Animal care or work with animals
Gardener
Nursery
Ranching, farming

30 Architecture (concern with science and art)

31 Professional

Architectural engineer
Architect
Civil engineer
Design

32 Technical

- Drafting (architectural)
- Building contractor
- Paint contractor

33 Skilled

- Carpenter
- Painter
- Mason
- Cabinet maker

40 Arts (concern with beauty and expression)

41 Professional

- Dancer
- Writer
- Artist
- Commercial art
- Medical illustrator
- Musician
- Dress designer
- Interior decorator
- Home economics
- Landscape architect
- Owns art gallery
- Photographer
- Drama
- Directing movies

42 Technical

- Beautician

43 Skilled

- Model
- Non-professional artistic pursuit
- Home economics projects

50 Symbolic (concern with numbers and symbols)

51 Professional

- Mathematician
- Computer consultant
- Public accountant
- Data research engineer
- Manager, computer center
- Statistician
- Auditor

52 Technical

Computer programmer
Bookkeeper
Manager, credit department
Math records investigator, Lockheed

53 Skilled

Key punch operator

60 Business (concern with money and services)

61 Professional

Business executive
Owner of business
Banker
Public relations consultant
Hospital administration consultant
Real estate administrator
General manager
Stock broker
Supervisor of marketing and training, SOCO
Contract administrator
Economist
Regional sales manager
Manufacturer
Account executive in advertising

62 Technical and Semi-professional

Executive secretary
Insurance agent and manager
Public relations work
TV advertising
Wholesale florist
Produce manager
Store manager
Lithographer (business)
Purchasing agent
Buyer, seller, merchandiser
Real estate sales
District manager, sales
Average adjustor, typography company
Personnel management
Sales representative (Task Force)
Supervisor of communications (Stanford)
Marketing engineer
Manufacturer's representative
Buyer for women's store

63 Skilled

- Sales clerk
- Office worker
- Clerical worker
- Filing Clerk
- Receptionist
- Waitress
- Telephone operator
- Grocer
- Bus Driver
- Cooks, caterer
- Baker
- Dry-cleaner
- Laundry
- Crater-packer
- Warehouse worker
- Tupperware dealer
- Railroad scheduler
- Traffic manager for trucking concern
- Milkman
- Direct mail advertising
- Stock room clerk

70 Law and Government (concern with theory and social problems)

71 Professional

- Diplomat
- Foreign service official
- Lawyer
- Attorney
- Politics
- Specialist in Latin American affairs

72 Technical

- Probation officer
- Government work
- Peace Corps
- Police
- FBI
- Court reporter
- Investigator
- Parole agent (narcotics division)
- Deputy labor commissioner
- Employment office, Post Office

73 Skilled

- Office workers in government
- Post Office
- Census taker
- Fireman

80 People (concern with helping others directly)

81 Professional

- Psychologist
- Psychiatrist
- Coach
- Teacher
- Primary or nursery school teacher
- Professor
- Counselor
- Public school administrator
- Speech, hearing, handicapped therapist
- Music therapy
- Physical therapy
- Librarian
- Graduate assistant
- Linguist
- Journalist
- Clergyman
- Research psychologist
- Social worker

82 Technical

- Recreation
- Stewardess
- Vocational counselor (employment agency)

83 Skilled

- House cleaning

90 Miscellaneous

92 Military

94 Housewife

95 Deceased

96 Student